The American Artisan

THE HARDWARE RECORD

Vol. 45—No. 22. CHICAGO, MAY 30, 1903. $2.00 Per Year.

LIBRARY OF CONGRESS RECEIVED JUN 3 1903 PERIODICAL DIV.

COLUMBUS BOLT WORKS
COLUMBUS, OHIO.
Write for Our General Catalog "C."

PURE ASPHALT ROOFING
Never Dries Out or Cracks Our Tarred Ready Roofing, Sisters' Felt, Building Paper, Roofing Cements, Paints, Etc. WRITE US FOR PRICES.
J. L. PERKINS & CO., 235 Lake St., CHICAGO.

Never Will Leak . . .

American Seal Elastic Oil cement will not get hard—always stays elastic.

Stops leaks in any roof—old or new, and will wear for years. Fix up the roof now and stop the leakage—in money and roof.

Use it on new work for jointing and 'round your skylights—follow it with a coat of American Seal Roof Paint—the best made—and the top of your house is safe for years. *Prices for the asking.*

THE WM. CONNORS PAINT MFG. CO.,
TROY, NEW YORK.
WESTERN AGENTS Dept. A. { J. L. Perkins & Co., 235 Lake St., Chicago. Stockhoff Supply Co., 107 North Main St., St. Louis.

"To discontinue your advertisement," says Ex-Postmaster-General John Wanamaker, one of the largest advertisers in the world—and naturally enough, one of the most successful business men,—"is like taking down your sign. If you want to do business, you must let the people know it. I would as soon think of doing business without clerks as without advertising."

TINNERS FIND EMPLOYMENT
By advertising and using THE POWERS AUTOMATIC CHIMNEY TOPS
They make chim neys draw, give tinners employments making stocks, and give the dealers profit
Sold by Hardware Jobbers and Dealers
Made only by
POWERS BROS.
STREATOR, ILL.
This cut free to dealers.

BURTON'S Fuel Economizer

Attached to a stove pipe saves more fuel and radiates more heat than any other stove pipe attachment.

AN EASY SELLER.

Assertions Backed by Guarantee.

The W. J. BURTON CO.
DETROIT, MICH.

Atlas Bolt & Screw Co.

CLEVELAND, O.
Manufacturers of
Stove Bolts
Stove Rods
Stove Rivets
Mica Bolts
Fancy Nuts
Register Pins
Hinge Pins
and kindred articles for the
STOVE and RANGE
Manufacturing Trade

Don't you be the victim of competition between certain manufacturers who try to turn out the cheapest scale possible. You demand a scale with hardened tool steel pivots and bearings throughout and other high grade qualities. With "Osgood" on the beam you are getting the best scale at the price on the market. Send us a sample order if you don't believe it. Osgood Scale Co., Binghamton, N.Y.

Black Diamond Files and Rasps
PERFECT—ALWAYS
Cwelve Medals Awarded

At International Expositions
G. & H. BARNETT CO.
Black Diamond File Works, PHILADELPHIA, PA.

Nicholson File Co.
GENERAL OFFICES: PROVIDENCE, R. I., U.S.A.
Manufacturers of

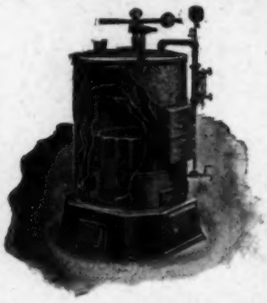
FILES and RASPS
NICHOLSON, KEARNEY & FOOT, ARCADE, AMERICAN, GREAT WESTERN, McCLELLAN, EAGLE, J. B. SMITH, "X. F." GOLD MEDAL.

GENEVA TOOL CO. Hand Agricultural Tools, GENEVA, OHIO.

The quality of IDEAL Boilers and AMERICAN Radiators makes their price low — the best value always.

AMERICAN RADIATOR COMPANY

LAKE & DEARBORN STREETS, CHICAGO.



The Columbia

OUR NEW PORTABLE BOILER

for Steam and Hot-Water Heating, is a trade winner. If you have not received our price-list write for it and secure the agency for your city.

VANCE BOILER WORKS, 148 Water Street, Geneva, N. Y.

MAYER & COMPANY

MANUFACTURERS OF

WE USE THE BEST STEEL HAVE THE BEST METHODS OF TEMPERING AND PAY THE HIGHEST WAGES.

BEST ON EARTH

GOLD MEDAL FILES

NOT IN THE TRUST

B. G. I.

The Tomlinson Cleaner

Is the most satisfactory means of thoroughly cleaning a shot gun ever invented. It will absolutely remove rust spots and keep a gun in perfect condition. Will fit any standard rod and any gun. The Tomlinson is cheap at $1.00 for it will last a lifetime with proper care. New wire sides furnished.

BRIDGEPORT GUN IMPLEMENT CO.,

Agency 313 Broadway, New York City, N. Y. BRIDGEPORT, CONN.

"TABASCO" WATER HEATERS

ALL-STEEL, SELF-FEED SHAKING GRATE

FOR

Small Residences, Green Houses, Flats, Hotels, Baptistries, Bath Houses any place a supply of hot water is needed.

SEND FOR CATALOG.

KEWANEE BOILER COMPANY

KEWANEE, ILL.

CHICAGO STORE: 167-169 East Lake Street CHICAGO

ST. LOUIS OFFICE: 518 Bank of Commerce Bldg.

M. TRAVILLA,

QUINCY, ILL.,

MANUFACTURER

"Air-Tight" Stoves

ASK FOR PRICES.

Wellsville Polished Steel

"THE VERY BEST."

PETERS AMMUNITION

Peters Factory Loaded Shells Is the most complete line of Shotgun Ammunition on the market.

Loaded with all the standard bulk and dense smokeless powders, semi-smokeless and black powder, fulfilling every requirement of the sportsman at the trap or in the field.

Peters Cartridges Hold the World's Records in Rifle, Revolver and Pistol Shooting.

Eastern Department: 88 CHAMBERS ST., NEW YORK. T. H. Keller, Manager.

HIBBARD, SPENCER, BARTLETT & CO., Chicago, Ill.
CHARLES G. GRUBB, Pittsburg, Pa.
F. B. CHAMBERLAIN CO., St. Louis, Mo.

THE PETERS CARTRIDGE CO.

CINCINNATI, OHIO

THE PRIDE OF THE BRIDE

Moore's Stoves Always Please

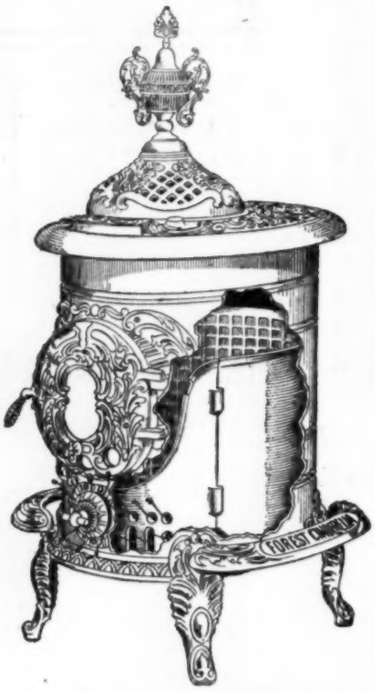
THE EASY LINE TO SELL

THE YOUNG HOUSEKEEPER is a modern woman and wants everything up-to-date, that's why she selects Moore's Steel Range. The evident usefulness of the Oven Thermometer, Hinged Top and other conveniences appeal instantly to her alert understanding.

JOLIET STOVE WORKS, Joliet, Ill.

56 HOLBROOK, MERRILL & STETSON, San Francisco, Sacremento, Los Angeles.

"Advertise the facts; that's enough."—JOHN LEE MAHIN.



We are often asked, "How long will the cast-iron linings in the FOREST CINDERELLA wear? We don't know and won't know until the first piece cracks, warps or burns through. One or two years usually tells the story of Stoves of this type, but four years has failed to show a single weak spot in this stove. It is a clean seller. We don't have to "carry any over," and our trade "sell out clean." That is proof of merit.

THEY WORK. THEY WEAR. THE PRICE IS FAIR.

WHY SHOULDN'T THEY BE POPULAR?

The Dealer who sells this Stove gets something besides "fresh air and exercise." He makes a profit.

THE PITTSBURGH STOVE & RANGE CO.

PITTSBURGH, PA.

Western Agent: ***W. D. SAGER, 38 and 40 Michigan St., CHICAGO, ILL.***

There is Money in a Specialty—We Have a SPECIALTY in Our

"WINNER"

DOWN-DRAFT STOVE

Dealers who handle it say it is rightly named, as it is

A WINNER

It saves half the fuel.
Fire pot at top of stove.
Smoke pipe at base.
Heat drawn to the floor.

PERFECT COMBUSTION, SIMPLE, PRACTICAL, PERFECT.

Write us at once for further information. Don't delay but secure the agency for your territory. You can make money and friends and satisfy your customers with the

"WINNER."

The PECK-HAMMOND CO.

CINCINNATI, OHIO.

Manufacturers of Stoves and Furnaces.

The Tuttle-Allen Stove Co., Kansas City, Mo., Agents for Kansas, Indian Territory, Oklahoma and Missouri.

BUY FROM YOUR JOBBER

WE WILL PAY

IF YOU BUY

Black Kid Stove Polish

of your jobber and it is not the best you ever used, DO NOT PAY FOR IT. We will pay; send bill to us.

Black Kid Paste, 5-lb. Cans, per can, 65 cents. Black Kid Paste, 1-lb. cans, per doz., $1.50
Black Kid Liquid, 10-oz. cans, $1.00

NICKEL PLATE STOVE POLISH CO., CHICAGO

THE SUN STOVE COMPANY

DETROIT, MICHIGAN

Manufacturers of

SUN STOVES

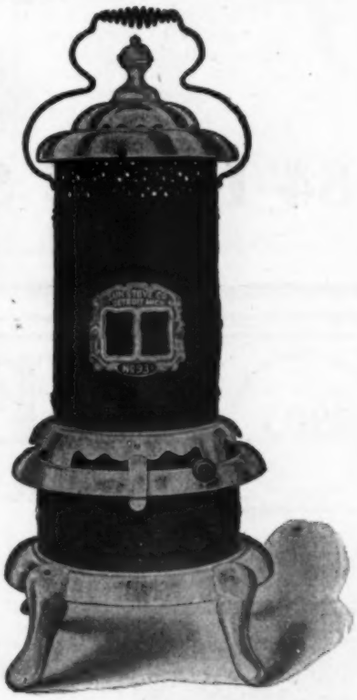
Gasoline, Oil and Gas Stoves, Ovens, OIL HEATERS, Hot Blast Smoke Consuming Coal Heaters, Air-Tight Heaters for Wood, Gasoline Torches and Lamps.

THE SUN OIL HEATERS

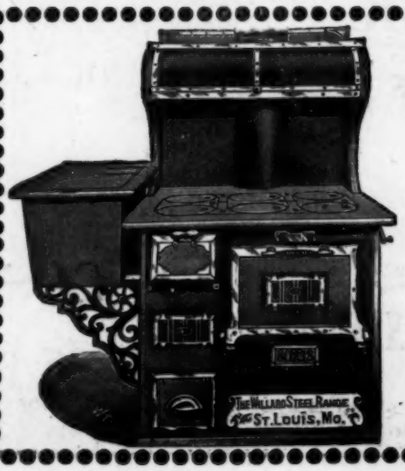
have all the latest improvements. The wick does not turn down into the oil fount, has a separate receptacle, allowing the cold air to pass on the outside of same. Consequently the oil is kept cool and explosions are impossible. Provided with deflector in drum. Top can be removed for heating water. Made in five sizes. Cheaper than the cheapest and better than the best.

WE COURT COMPARISON.

Write for Prices and Printed Circular.



Western Agents: W. D. Sager, 38 & 40 Michigan St., Chicago, Ill., Wholesale Agent for Chicago and the Northwest. Gille Mfg. Co., Kansas City, Mo., Wholesale Agent for the Southwest.



Ha! Ha!

The retailer who handles the *Willard Steel Range* can laugh at catalogue house competition. Low Price and High Quality are convincing arguments in its favor and tell the story of its success.

Wm. G. Willard, Mfr.

619-621 N. Fourth St., ST. LOUIS, MO.

Richardson & Boynton Co.'s

"Perfect" Furnaces

AND

"Perfect" Ranges

Are universally known as first-class goods.
Their popularity is deserved. The best dealers only sell them.
Send for descriptions, &c.

(Established 1837)

84 LAKE ST., CHICAGO, ILL.

232-234 Water St., New York. 51 Portland St., Boston, Mass.

1903

THE STRIKES

WILL SOON BE SETTLED

And there will be a great building boom on. We are ready to meet all demands for

BOYNTON'S STEEL DOME FURNACE

HEATING APPARATUS

STEAM, HOT WATER and WARM AIR

New Catalogues and Price Lists Just Issued.

We advise preparations for the largest season's trade in heating apparatus ever known.

The Boynton Furnace Co.

New York Chicago

1903

The
FAULTLESS
MALLEABLE

Faultless Mfg Co.,
617 AUSTIN AVE., CHICAGO.

Unless

You try it Mr. Dealer you can have no possible conception of the tremendous leverage in your business to handle the

MONARCH
AIR BLAST FURNACE..

The low price coupled with the high quality and talking points will enable you to talk to your prospective customer's pocket book, and appeal to his reasoning faculties and to defy competition.

Write for Catalogue.

The Forest City Foundry & Mfg. Co.
Winslow & Elm Sts., Cleveland, O.

The House-Warming Manual

Is beyond all doubt the best book published on practical house heating.

It contains the plans and essays on heating a house submitted in THE AMERICAN ARTISAN House Warming Competition for $300.00 prizes, and is in fact

An Encyclopedia of the Most Modern and Improved Practical Methods of Heating a House by Steam, Hot Water and Warm Air.

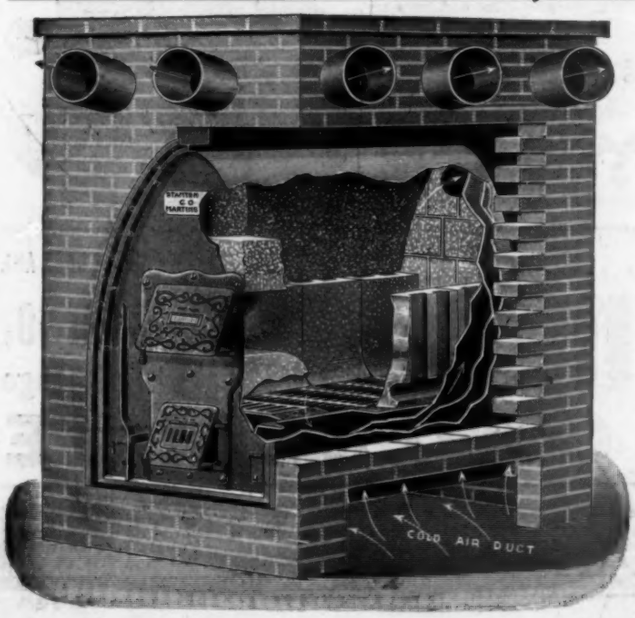
A Leading Western Newspaper says:

"The volume is well-bound and artistically printed and illustrated volume of nearly 300 pages, and contains some masterly essays on steam heating, hot water heating and warm air heating. Nearly every prominent authority in this field is quoted, and an application of principles and improvements suggested covers all technical details in a simplified and practical way. House plans and diagrams accompany the subject matter, which deals specifically with radiation, combustion, ventilation, prices, estimates, and the best and latest methods for placing, connecting and utilizing the apparatus adopted."

Price, Only $3.50 Per Copy.

For sale by all booksellers or the Publisher

Daniel Stern,
69 Dearborn Street,
CHICAGO.



THE
Stanton Seamless Heater

The most phenomenally successful heater offered the trade.

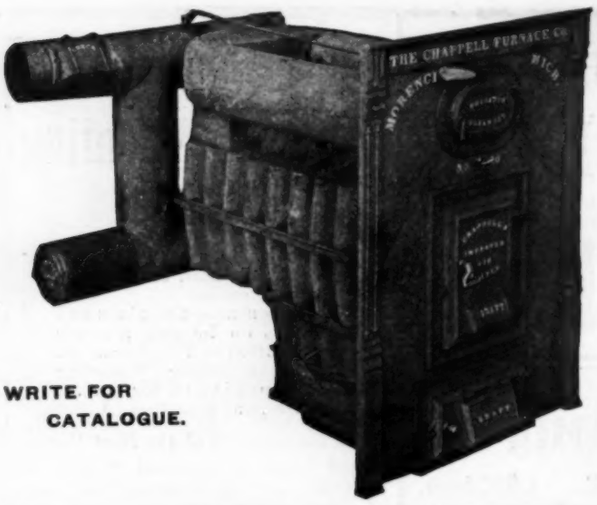
UNEQUALLED FOR { Economy, Durability, Satisfactory Results

The Stanton Makes Winter Homes Summer Residences.

GUARANTEED AGAINST LEAKAGE OF { Carbonic Acid Gas, Smoke, Dust

Is not the furnace that is best for the householder the best for the dealer?

Stanton Heater Co., Martin's Ferry, O.



WRITE FOR CATALOGUE.

We Invite You

To examine the merits of this

Excellent Furnace.

The CHAPPELL is all cast iron.
The CHAPPELL burns long wood or coal.
The CHAPPELL has seamless radiators.
The CHAPPELL has long fire travel.
The CHAPPELL has only eight joints.

The Chappell Furnace Co.,
MORENCI, MICH.

EMPEROR FURNACES

For Wood

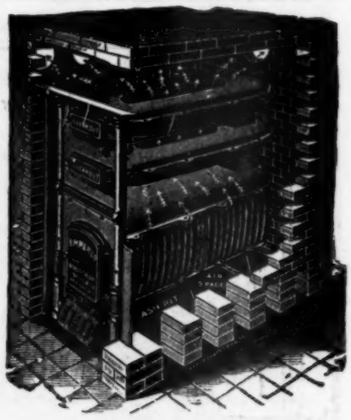
SIMPLE SAFE DURABLE

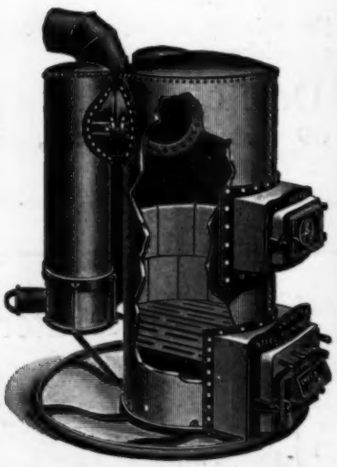
The Best and Cheapest Line of Wood Furnaces

FURNISHED FOR EITHER BRICK OR GALVANIZED IRON CASING.
Send for Catalogue.

Bergstrom Bros. Co.

NEENAH, WIS.





"Vertical Lines"

That's the kind used in the

FRONT RANK

Hot Air Furnaces. Their use brings the air in direct contact with entire heating surface.

The Front Rank Fire Chamber is one solid sheet of closely riveted steel; being lined above the fire lines with genuine fire clay tiling, it is the most durable made.

The radiators are very large and have an unusual area of heating surface in comparison with size of the fire pot.

These furnaces burn hard or soft coal or coke. We also make wood burning furnaces.

Send for our catalogue, it will give you a better idea of what we make.

FRONT RANK STEEL FURNACE CO.,
2301 to 2309 Lucas Av., ST. LOUIS MO.

HERO Furnaces

FOR FURTHER PARTICULARS ASK
Chas. Smith Co.
122 Lake St., Chicago

BEST FOR A COLD CLIMATE

L. B. HOOKER, Sturgis, Mich., writes: "Your paper is a grand success. I believe no tinner or plumber should do without it. I try to keep up with the times and the only way is to find out what other shops are doing and the way to do that is to take THE AMERICAN ARTISAN."

FLORAL CITY FURNACES

Are strictly up-to-date, old patterns have been relegated to the scrap heap, old methods discarded, but they are in no sense experiments. Every furnace is time tried and has been thoroughly tested in a climate where the temperature often falls to 40° and 50° below zero. Write for catalogue.

MONROE FOUNDRY & FURNACE CO.
MONROE, MICH.

HUSTLERS

are always in demand. There are drones and workers in the furnace world as well as elsewhere.

THE CROWN FURNACE

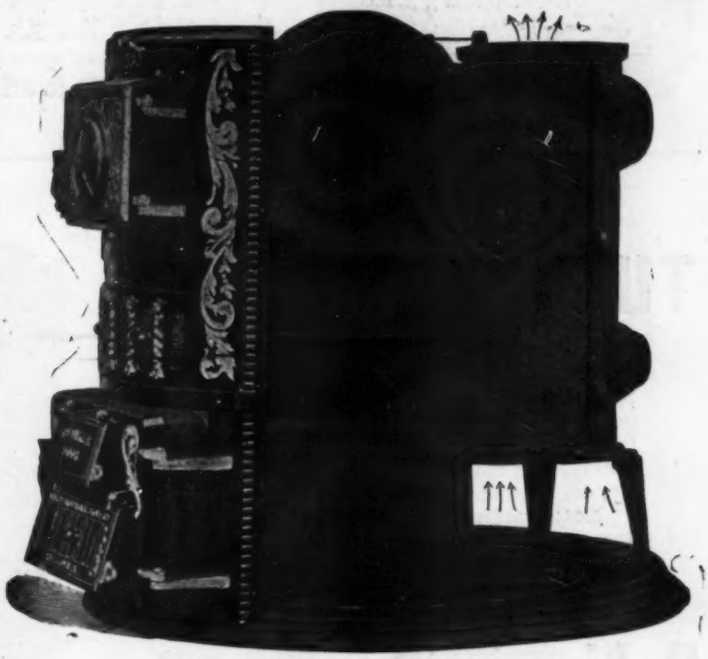
Low down type, made in 4 sizes is a "hustler." It is made extra heavy throughout, and will stand severe usage.

It has an extremely large amount of radiation for the size of the fire-pot used.

It can be very easily cleaned.

Write for Catalogue.

March-Brownback Stove Co.,
POTTSTOWN, PA.



The Crown Low Down Warm Air Furnace.

THE LARGEST AND MOST COMPLETE

LINE OF FURNACES IS THE

MUELLER

MADE FOR ALL KINDS OF FUEL

WRITE FOR CATALOG AND PRICES

Everything in the Heating Line.

L. J. Mueller Furnace Co.
191 Reed St. MILWAUKEE, WIS

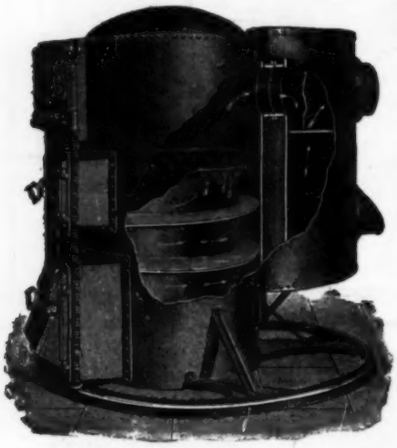
Persistence in Advertising

In the expansion of business now bringing profit to so many manufacturers, advertisers who have made themselves regularly prominent in the past five years have been notable in reaping the rewards of persistent publicity.

BRAND STOVE CO.

We make largest line of cooking and heating apparatus, cast cooks, cast ranges, steel cooks, steel ranges, hotel outfits, heating stoves, furnaces, hot water and steam heaters. Send for catalogue.

MILWAUKEE, WIS.



WEIR ALL STEEL GAS AND SOOT CONSUMING FURNACE.

THE HEAVIEST STEEL FURNACE MADE.

Absolutely Gas and Dust Tight. A Great Heat-Producer, but a Fuel Saver.

MANUFACTURED BY

THE MEYER FURNACE CO.

1300-1304 S. Washington St.,

Send for Catalogue. PEORIA, ILLS.

"The HANDY FURNACE PIPE"

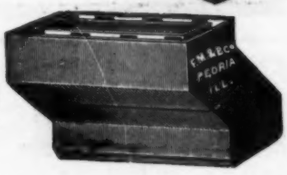
Made with a View of Being Safe.

The saving of labor in putting it up really makes it the cheapest hot air pipe on the market.

MANUFACTURED BY

F. MEYER & BRO. CO.

Send for Catalogue. PEORIA, ILLS.



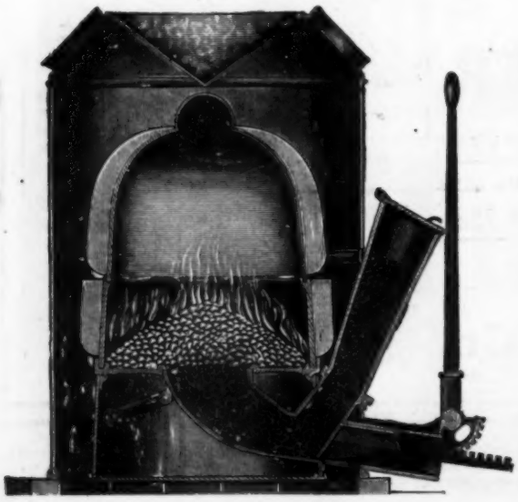
ROBINSON TUBULAR FURNACE

for hard coal, with boiler flues in radiator exposed. The arrows indicate which way the smoke goes after it leaves the fire pot on its way to the chimney. The fire travels farther in our Tubular Furnace than in others, and this adds to the heating capacity, also reduces coal bills.

Notice main damper in smoke box. The damper can be opened when starting a new fire, or when reviving an old one, but is at all other times closed, thereby forcing combustion twice around radiator.

Robinson Furnace Co.

107-109 Lake St., CHICAGO, ILL.



Go Boldly

Mr. Dealer to the man who thinks of putting in a new furnace and tell him he can save half his coal bill if he installs an **Underfeed furnace.** You will find this the way to make money in the furnace business. The cut shows a section through furnace and casing, showing feeding mechanism and rotary grate. Write for catalogue.

...The Western... Furnace & Foundry Co.,

1218 Harney St., Omaha, Neb.

100
Tinners' Patterns

THE AMERICAN ARTISAN FULL SIZE PATTERNS

Comprise patterns for a full line of tinware, in numerous sizes, square and round elbows, cut-offs, etc. These full-size patterns, numbering upward 100, are printed on manilla paper, from which they are readily transferred to heavy sheets and cut out ready for use. The list contains the following patterns:

Tea Steeper
Two-pint Tea Pot
Three-pint Tea Pot
Four-pint Tea Pot
Five-pint Tea Pot
One-quart Coffee Pot
Two-quart Coffee Pot
Three-quart Coffee Pot
Four-quart Coffee Pot
Five-quart Coffee Pot
No. 1 Coffee Boiler.
No. 2 Coffee Boiler
No. 3 Coffee Boiler
Lamp Filler
One-pint Dipper
One-quart Dipper
Two-quart Dipper
Four-quart Flaring Pail
Six-quart Flaring Pail
Eight-quart Flaring Pail
Ten-quart Flaring Pail
Twelve-quart Flaring Pail
Fourteen-quart Flaring Pail
Ten-quart Dish Pan
Twelve-quart Dish Pan
Fourteen-quart Dish Pan
Sixteen-quart Dish Pan
Dinner Bucket
Five-inch T-Joint
Six-inch T-Joint
Eave Trough Mitre Joint
"Snap" 2-inch Conductor Elbow
Cullender
Two-inch Square Elbow
Two-and-a-half-inch Square Elbow
Three-and-a-half-inch Square Elbow
Four-and-a-half-inch Square Elbow
Five-and-a-half-inch Square Elbow
Six-and-a-half-inch Square Elbow
Seven-and-a-half-inch Square Elbow
One-pint Funnel
Two-pint Funnel
Three-pint Funnel
Four-pint Funnel
Small Milk Strainer
Large Milk Strainer
Ten-quart Milk Pail Breast
Fourteen-quart Milk Pail Breast
Two-inch Four-piece Round Elbow
Three-inch Four-Piece Round Elbow
Four-inch Four-Piece Round Elbow
Five-inch Four-Piece Round Elbow
Five-and-a-half-inch Round Elbow
Six-and-a-half-inch Round Elbow
Seven-and-a-half-inch Round Elbow
Small Grocers' Scoop
Medium Grocers' Scoop
Large Grocers' Scoop
Apple Corer
Oval Foot Bath
Oval Pudding Pan
Half-gallon Can Breast
One-gallon Can Breast
Two-gallon Can Breast
Three-gallon Can Breast
Half-pint Measure
One-pint Measure
One-quart Measure
Half-gallon Measure
One-pint Basin
Two-pint Basin
Three-pint Basin
Four-pint Pan
Six-quart Pan
Ten-quart Pan
Small Cake Pan
Medium Cake Pan
Large Cake Pan
Small Wash Basin
Large Wash Basin
Sprinkler Breast
Four-gallon Churn
Five-gallon Churn
Small Dust Pan
Large Dust Pan
Five Sizes Funnel Patterns
Oval Dinner Bucket
Rain Water Cut-off
No. 7 Boiler Cover
No. 8 Boiler Cover
No. 9 Boiler Cover
No. 7 Boiler Bottoms
No. 8 Boiler Bottoms
No. 9 Boiler Bottoms

THE AMERICAN ARTISAN **full size patterns are a great convenience, and in no other way can they be obtained at so small a cost. Price, sent postpaid for the**

FULL SET OF 100 PATTERNS $1.00.

DANIEL STERN,

69 Dearborn Street,
CHICAGO, ILL.

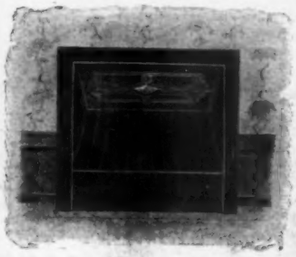
MONCRIEF

WARM AIR FURNACE.

Specialties
- All Cast Iron.
- Moncrief Duplex Grate.
- Large Radiating Surface.
- Double Fire Pot.
- Large Grate Surface.
- Top Return Flue.
- Simplicity, Durability, Economy, Cleanliness in Use.

HENRY & SCHEIBLE CO.
6-8-10 Long St., Cleveland, O.

THE AUER WALL REGISTER

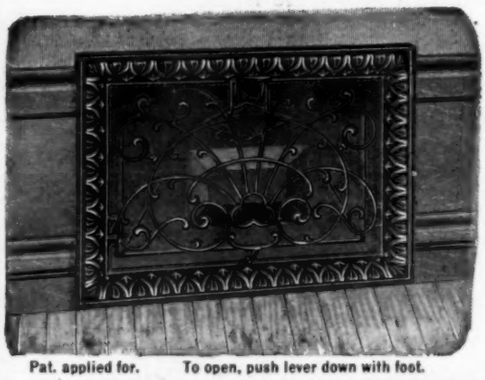


Perfected and Tested. Not an Experiment. The only one that has the cosey appearance of the fireplace. The only one that is practical for a foot warmer.

The only one that closes tight having no grating over front to catch dirt and dust.
Write for Catalogue.

The AUER REGISTER CO., Toledo, O.

A WALL REGISTER



Pat. applied for. To open, push lever down with foot.

THAT FILLS ALL REQUIREMENTS IS THE "MUELLER"

Write for Circular and Prices.

Pat. applied for. To close, push lever up with foot.

L. J. MUELLER FURNACE CO., 191 Reed St., Milwaukee, Wis.

TO OPEN, PUSH INWARD AT TOP.

Symonds Wall Register

SEND FOR FREE SAMPLE

Symonds Mfg. Co., East St. Louis, ILL.

TO CLOSE, PUSH DOWN AT BOTTOM.

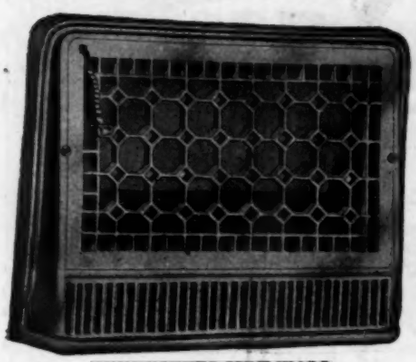
BOOKS BY MAIL

THE Publisher of the American Artisan will take pleasure in supplying books of whatever character, at catalogue prices, prepaid by mail, to any address, on receipt of price. The following are lines specially represented:

Sheet Metal Working :: The Foundry
The Workshop :: Heating and Ventilating
Plumbing and Drainage :: Bicycle Repairing
The Store and Office

DANIEL STERN,
PUBLISHER AND BOOKSELLER
69 Dearborn Street, CHICAGO.

FERROSTEEL REGISTERS

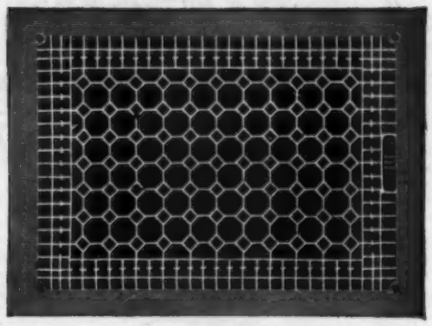


FERROSTEEL SIDE WALL

WORK

PERFECT MECHANISM
UNEQUALLED FINISH

PRICES LOWEST
TERMS LONGEST
STOCK LARGEST



FERROSTEEL FLOOR

FERROSTEEL COMPANY, CLEVELAND, OHIO.

STOWELL SIDE WALL REGISTERS

THE LATEST AND BEST

Beautiful Design
Perfect Ventilation
All Finishes
All Sizes

Furnished with or without pipe

ADVANTAGES

Air tight.
No discoloration.
Noiseless.
Largest air capacity.
Ventilates both floors.
No cutting of carpets or floors.
No dust.

Address Register Dept.

STOWELL MFG. & FOUNDRY CO.,
South Milwaukee, Wis.

T. O. HALVERSON, Ankeny, Iowa, writes:

"My Advertisement in your paper for Tinners' Tools brought me just what I wanted. I got at least twenty-five answers from all parts of the United States."

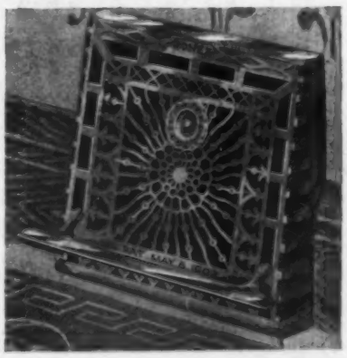
HEAT LIGHT
FOR THE
HOME
STORE
HOTEL
SCHOOL
CHURCH
OFFICE
COLLEGE
THEATRE
FACTORY
VILLAGE
INFORMATION FREE
SEND FOR IT.
DETROIT HEATING AND LIGHTING CO.
DETROIT MICH.

GILT EDGE FURNACES

THE MOST COMPLETE LINE MANUFACTURED FOR ALL KINDS OF FUEL. DURABLE, ECONOMICAL, GAS TIGHT.

The Jones Side-Wall Register . . . . . .

The register having full capacity of hot air pipe for large living rooms or for heating a room on the first floor and extension to second. Has a face of neat design and not a hole in the wall when open. Has a regulator which holds the damper permanently in position. Can not get out of order. Double safety box included in each register.



Send us sketch for plans of latest method of heating with *GILT EDGE FURNACES* and *JONES REGISTERS*, least work, least pipes, least waste of heat, most economical.

R. J. SCHWAB & SONS COMPANY,

Manufacturers of Gilt Edge Furnaces and Northwestern Distributors of Jones Side-Wall Registers.

MILWAUKEE, WIS

ROUND OAK
STANDARD of AMERICA

Furnaces and furnace heating
have a mighty bad name
in a good many towns
in our country,
and the cheap furnace and
cheap furnace work
are responsible for it.
What is the use of everlastingly
trying to get in your bid
a little lower than your competition?

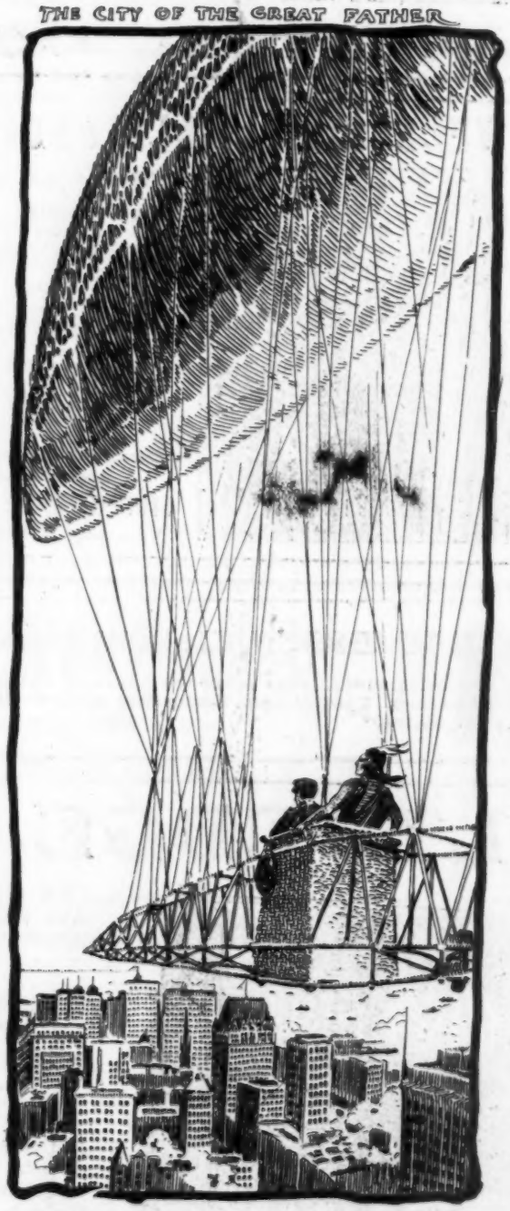
Why not get a furnace of
quality — like the
Good Round Oak;
learn the new methods of installing;
set a reasonable price on the
furnace and the high-class
material and workmanship you
will always use; charge
everybody the same,
and never have a failure nor a kick,
but instead, a constantly
increasing furnace business,
founded upon quality,
integrity and right principles?

It can be done —
It is being done.

If you are interested in new and
common sense ideas in getting
away from "price only,"
write us.

Furnace book,
"Warmth and Comfort,"
sent promptly upon request.

THE CITY OF THE GREAT FATHER



Estate of P. D. BECKWITH,

DOWAGIAC, MICH.

Makers of Good Goods only.

48

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES, THEIR POSSESSIONS, AND CANADA, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
IN FOREIGN COUNTRIES EXCEPT CANADA, ONE YEAR, POSTAGE PAID, $4.00.
Address all Letters, communications and remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,
69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.
THIS PAPER IS A MEMBER OF THE CHICAGO TRADE PRESS ASSOCIATION.

CHICAGO, MAY 30, 1903.

DURING the past year 21,905,251 tons of ore were shipped from the Lake Superior region. This breaks all previous records.

THE Retail Grocers' Association of Milwaukee, Wis., have passed resolutions not to handle the products of manufacturers which are placed in department stores.

DURING the past week a decision has been handed down in the case of the creditors of the American Hardwood Co. vs. Export Storage Co., at Nashville, Tenn., which thoroughly vindicates the reliability of warehouse receipts.

A CERTAIN large firm have, according to another paper, installed a telephone in every one of their departments, and every man with a position of any authority is supplied with a board giving a list of the departments. A loose peg fits a hole in line with each name on the list and when the man leaves his post he pegs his objective point. Should he go to another department subsequently he is expected to keep his assistants in touch with his movements and they peg his location. The system saves time and thus lengthens the business life.

CHINESE official returns show that the imports from the United States in 1902 amounted to 30,138,713 Haikwan taels, against 23,529,606 taels in 1901, 22,288,745 taels in 1899, 12,440,302 taels in 1897, and 5,093,182 taels in 1895. The total for 1902 is the largest in the history of commerce between China and the United States, and is six times as much as in 1895, two and one-half times as much as in 1897, about 35 per cent more than in 1899, and nearly 30 per cent larger than in 1901. Cotton goods, kerosene oil and flour continue to form the chief imports from the United States.

Concerning Things Temporal.

The present is the crown of the past. Our buildings, our food and our clothing, our literature, our science, our sanitation, our beliefs, our hopes, our aspirations are all the outgrowth of the endeavors of past ages. The school-boy of to-day knows more about mathematics than Isaac Newton. The day laborer is better fed and better clad than the greatest of Saxon potentates. The Bowery newsboy with a broken leg receives surgical attendance that the relinquishment of his crown could not have secured for a medieval monarch.

All the world we see about us is of the past. Hundreds of orders for the Philippine line of hardware are received each morning by the Philippine Hardware Co. Their immense factory has been running overtime on orders for months. This activity of theirs to-day is the result of past advertising, past solicitation of orders, past reputation. Suppose that by some trick of an Aladdin's lamp this concern had sprung into existence full grown like Minerva from the head of Jove on this very morning. Would their unheralded concern have found a single order awaiting them? To ask such a question is to answer it. The successes of to-day in business or in literature, in the pulpit or the crafts, is the outcome of the painstaking efforts of yesterday, and the economical artisan, the studious young merchant, the diligent student of July, 1903, will be the captains of industry, the commercial giants and the honored scholars of July, 1913. The present is provided for by the work of the past, and our toil to-day is to earn our to-morrow's bread.

All this line of argument is simplicity itself ranking on the border of platitude, but it is the apparent truths that are most generally neglected.

Some manufacturers are enjoying an excellent demand for their products and are full of confidence in the immediate future of the market. They are still very busy with orders secured by their past work and blindfolded by a happy optimism can see nothing of the uncertainties of the future.

These men have given their traveling men enforced vacations, and have suavely but speedily dismissed advertising solicitors because at present they have more orders on hand than they can fill.

They are overlooking the simple fact that present market conditions considered generally and also in reference to their own individual business interests are the summation of past conditions and that already the dynamic forces that are forming the future of nations and of individuals are at work.

The manufacturer who has an abundance of orders on hand in the latter part of July, 1903, will not be the man who starts in hustling for orders on July 1st next, but the man who starts in to-day.

The prudent business man will realize that there are plenty of orders for future delivery which may be had for the asking, and the cost of securing these is less now than they will be in dull times when sellers are everywhere seeking buyers.

There is a right way and a wrong way to do business under any and all circumstances. Under those dominant in the world of business in the passing hour

the proper thing for manufacturers to do is to advertise liberally and keep sold ahead. The successful merchant, as we have said before, is not the one who combines the functions of jobber and manufacturer and keeps a large supply of goods on hand, but rather the one who never catches up with his orders any more than he does with his shadow.

Rural Free Delivery.

WHAT is the status of the rural free delivery mail carrier? Is he a government employee, a merchant, a broker or a peddler? Is he supposed to look closely after Uncle Sam's interests or is he a jack of all trades with license to use his official position in competing with country merchants in all lines? These are interesting questions for the hardware dealer as well as other commercial interests of a small town.

A paper has been recently started in Chicago styled the Rural Free Delivery News, whose purpose, judging by its line of advertising, is to utilize government employes for pushing various forms of business to the detriment of their regular duties. In looking over a recent issue of this publication, we find the following announcements:

Sanford Makeever & Co., 84 Adams st., Chicago, advertise:

"You are undoubtedly men of good character, habits, and are honest, otherwise the government would not employ you.

"You can help us, and by so doing more than double your income at no expense to yourself, and we will pay you as regularly this additional income as your wages are now paid.

"You should be able to do this by giving us only a few minutes of your time when off duty once a week, to send us desired information concerning certain conditions of trade along your route.

"Nothing to invest. Will not interfere with any of your present duties, time or government regulations governing you in your work, and is strictly a legitimate proposition and offer to you."

We do not know what this mysterious proposition may be, but as this firm have heretofore been engaged in selling oil and similar stocks which were going up by and by, it is fair to presume that they are trying to get the rural free delivery man to tarry by the gate and talk A B C Oil Co.'s preferred at 10c per share, or Gold Creek Consolidated, now 25c per share, but about to jump to 35c June 15th.

Does the government pay the carrier to deliver mail or to work up a trade in pretty oil certificates guaranteed to make nice wall paper?

Gifford, Mabie & Co., 90 and 92 West Madison st., Chicago, a firm without a telephone, takes a half page to announce:

"Send us your name and address.

"We want to make you a proposition which R. F. D. carriers are in the best kind of a position to accept.

"You can easily double or treble your salary without interfering with your government position.

"You can not afford to lose this exceptionally good opportunity.

"Write for full particulars.

"Do it now. Don't wait."

A few pages further on we find the following announcement of the Texas Fidelity Trust & Investment Co., Chicago:

"We pay big money for information. Great opportunity for every carrier to make from $100 to $1,500. No soliciting, no canvassing, no working. Just a little thinking and a few minutes spent in writing us a letter."

The Chicago Correspondence Schools, Chicago, offer carriers:

"An honest proposition to increase your earnings by assisting us in distributing literature for the proposition contained in this advertisement. Investigate."

The Brilliant Gas Lamp Co., 42 State st., Chicago, advertise:

"You can make $2 to $5 out of every stop on your route by securing the agency for our Brilliant self making gas lamp. A rare chance for R. F. D. carriers to increase their income. As a starter sell one lamp, then this one will sell one or more in every home, store or church on your route, for when seen in operation they all want them. It is a city light in a country home. Ten or a dozen can be carried in your wagon without trouble. Write for catalogue and terms and give the number of your route."

The Royal Tailors, Chicago, say:

"Mister Rural Carrier: This is a direct personal note to you. In you we recognize a possible important factor in the further extension of our business. We supply hustlers with over 400 showy samples of fashionable suitings, overcoatings and skirtings, and our prices are so low and our work so good that selling is easy and the hustler's profit is liberal, certain and steady almost the year round. No capital necessary."

Farm Life, Chicago, says:

"Every R. F. D. carrier writing to Farm Life will receive an interesting proposition that means money in his pocket."

The Continental Casualty Co., 134 Dearborn st., Chicago, advertise:

"Increase your income by writing accident and sick benefit insurance. For agency address H. G. B. Alexander, second vice president and general manager."

Bullock, Ward & Co., Chicago, soap manufacturers, make an interesting offer to carriers to peddle their high-grade soaps, perfumes and toilet articles.

Hempstead & Co., Chicago, who handle clocks, Morris chairs, couches, etc., and give a "two burner Blue Flame Wickless oil cook stove free with $10.00 assortment of our goods," say:

"Rural mail carriers, attention! You can make big money taking orders for our goods on your rural route."

The Parker Chemical Co., Chicago, who handle furniture polish, fruit colorings, hair invigorator, etc., say in their advertisement:

"Carriers, double your incomes by selling our strictly high grade goods on your routes. The sale of only 200 articles at 25 cents each will give you a profit of $28, and you can easily sell this amount every week in the year, as from so large an assortment of goods several articles are required each week by every family. Our goods are superior in quality to those sold in the stores at similar prices, consequently they sell easily and quickly if necessary."

A. F. Sheldon advertises for "agents to secure students for the Sheldon School of Scientific Salesmanship."

The Magnetic Equipment Co., Chicago, who are selling stock in a new railroad equipment concern, tell:

"How R. F. D. carriers can increase their earnings with no risk, no cost, and with very little work. We want agents throughout the country to put our proposition before the speculators on your route. Do you know the people who speculate in your section? If so, we have a proposition to offer that will make money for your clients. Send us a list of their names and we will pay liberal commission on all orders you send in or that are received through your efforts."

The Creamery Package Mfg. Co., Chicago, advertise:

"To R. F. D. carriers: We are the largest dairy supply house in the world, and can offer you liberal commissions for selling our goods. We have a number of specialties that

appeal to the common sense of every farmer and dairyman. We know that you can greatly enlarge your income without interfering with your regular duties."

The Thresher World & Farm Magazine, Chicago, advertises:

"Rural free delivery carriers, we will pay you well to deliver free samples of wheat to farmers along your route."

Crofts & Reed, Chicago offer premiums for selling soap. Montgomery Ward & Co. and Sears, Roebuck & Co., have some interesting propositions, James F. Stiles & Co., Chicago, want carriers to sell clothes.

The National Co-operative Mercantile Co., Chicago, tell carriers:

"You can make big money taking orders for our clothing outfits, vehicles, bicycles, organs, sewing machines, watches, etc."

These are a few of the advertisements whose intent, if carried out to the letter, would sweep two-thirds of the retail merchants out of the country and would make rural mail delivery a howling farce. There are 60 to 600 names on a free delivery route. Let us suppose an up-to-date carrier starts out. At the first house on his route he delivers a letter and tries to interest the farmer in some of Makeever's oil stocks, the land proposition of the Texas Fidelity Trust & Investment Co., and the stock of the Magnetic Equipment Co. Then he tries to sell him a suit of clothes, urges upon him the desirability of a subscription to Farm Life and tells him the virtues of an accident insurance policy in the Continental Casualty Co. This he follows up by taking him out to the delivery wagon and showing him one of the Brilliant self-making gas lamps "ten or a dozen of which can be carried in the delivery wagon without trouble."

If the farmer is bald he tells him something about the Parker Chemical Co.'s hair invigorator, and to the children coming home from school he hands out some of the circulars of the Chicago Correspondence Schools. He also shows cuts of some of the cream separators and other dairy supplies made by the Creamery Package Mfg. Co. and delivers some of the Thresher World's free wheat. He next pulls out the catalogue of Hempstead & Co. and talks up Morris chairs, after which he sells the good lady of the house some premium soap and then goes on to house No. 2.

Puzzle: When does the carrier get through with his route?

We emphatically state that we are casting no reflection on the integrity or methods of any of these firms we have named. They are probably all A No. 1 concerns and will do what their advertisements say they will, but is it not an injustice to the retailer and the patron of the free rural delivery route for one of Uncle Sam's messengers to spend his time soliciting trade for mail order concerns?

We know that if the genial and hard-working postman who brings mail to THE AMERICAN ARTISAN should ask us "to buy a box of bunion cure, only 15c," while making his rounds that there would be a new man on the route. The postal authorities would properly hold that the mails should not be delayed and that we should not have our time taken up by the peddling tactics of a man who has access to an office in a governmental capacity.

Why does not the same rule hold in the country? Is the pleasure of the honest farmer at receiving news from his son to be disturbed by the tactless commercialism of the carrier who grasps the occasion to say: "Mr. Jones, your black coat is pretty well faded. Cannot I show you some samples of new suitings?" Again, is it any consolation to the farmer living at the end of the rural free delivery route who misses some vital news on account of delay in the transmission of a letter to learn that the carrier will get a nice commission on the catalogue house order he took from Farmer A and that he persuaded Farmer B after an hour's persuasive talking to subscribe to a "sick benefit" concern?

Uncle Sam is a man of rare acumen and he will no doubt put his foot down sternly and say to the rural carriers: "If you are working for me then work for me—otherwise resign"; but until the government takes this step thousands of dollars' worth of goods that should be sold through the legitimate retail hardware trade will be sold directly from manufacturer or mail order man to consumer. Furniture houses giving away oil stoves as premiums, and other agencies whose every tendency is demoralizing to retail trade will gain footholds all over the country and we will see a colossal monster of trade discrimination nurtured by the government in spite of the fact that the base of all government is impartial treatment of the governed.

Apropos this question we would ask: Suppose Mr. Hardware Dealer, you should get hold of a few local carriers, give them a place on your pay roll and have them solicit orders for you all along their respective routes. Don't you suppose that if a carrier went into Mr. A's house and talked steel range to him and then stopped at Mrs. B's house to tell her about the advantages of a porcelain-lined refrigerator that the postal authorities would murmur a little? If this is so, how then is it legitimate for a carrier to solicit accident insurance or distribute wheat? The question is one that retailers should make themselves decisively heard about, for if it is illegal for carriers to become common peddlers are not the advertising patrons of the Rural Free Delivery News parting with their good money for nothing?

THE importation of iron and steel, which has characterized the past year, shows no signs of abatement. The value of iron and steel imports in the month of March, as shown by the figures of the Treasury Bureau of Statistics, amounted to over $4,000,000, against about $2,000,000 in March of last year; and for the nine months ending with March amounted to over $38,000,000, against less than $19,000,000 in the corresponding months of last year. Curiously, all of the more important articles or classes of articles so imported are those of which the United States is a large producer. The United States is now by far the largest pig iron producer of the world, having last year produced more of this article than the United Kingdom and Germany combined, her production having practically doubled since 1897. Yet the importations of iron and steel during the fiscal year which is to end with next month will be double, in value, those of 1897, and four times those of 1899.

News Siftings.

The Gunter Stove Works, Bridgeport, Ala., have resumed operations with a full force in all departments.

The Ohio Pattern Works, makers of wood and metal patterns, are now located in their new quarters at 814-818 Broadway, Cincinnati, O.

The Louisville Tin & Stove Co., Louisville, Ky., have filed amended articles increasing their capital stock from $100,000 to $200,000.

The Board of Classification of the United States General Appraisers have decided that mantels or fireplaces made from decorated tiles are not dutiable as tiles.

The Stove Mounters' International Union will hold their next meeting at Indianapolis, Ind., on July 14th next.

It is said that G. D. Ferris, Mexico, Mo., will shortly erect a three-story brick building in that city, which he will devote to the manufacture of stoves and washing machines.

Aaron H. Wolff, George R. Pond and Louis Wolff are the incorporators of the A. H. Wolff Gas Radiator Co., New York, capitalized at $20,000. This is a well-known concern, whose increasing business has forced them to take this step.

Chas. H. Bradley, formerly connected with the stove firm of A. Bradley & Co., Pittsburgh, filed a petition in bankruptcy in the United States District Court, Pittsburgh, May 23, placing his liabilities at $411,758 and his assets at $399,972.

Louis Reiner has been appointed receiver for Reiner & Cohen, 436 Grand street, New York city, dealers in stoves and ranges. Mr. Cohen of this firm brought suit against Mr. Reiner for dissolution of partnership on account of disagreement.

An order was recently granted by Vice-Chancellor Stevens of the New Jersey bench for showing cause why a receiver should not be appointed for the American Stove Co. of Trenton, N. J., whose liabilities are given as $13,960 and assets of nothing.

Among the specialties in the stove line which are making money for perspective dealers is the Winner down-draft stove, manufactured by the Peck-Hammond Co., Cincinnati, Ohio. This stove has fire pot at the top of the stove, and smoke pipe at the base, and the heat is drawn to the floor.

The Bridgeport Crucible Co., Bridgeport, Conn., are manufacturers of the Champion stove clay. This, it is claimed, is the only stove lining which is made of crucible materials. It is packed in 2½ pound, 6 pound and 10 pound pasteboard boxes, and also in bulk, and is claimed to be the best and most refractory lining made.

Among the many specialties offered the trade by Stuber & Kuck, Peoria, Ill., is the "Stay-In" flue stopper, which is brass finished and nicely decorated. It is considered by the manufacturers to be the best on earth and is sold with the positive guarantee that it is absolutely soot proof. It cannot be pulled, jarred or blown from the flue hole.

In a few days the new 1903-04 issue of the catalogue of the Belleville Stove Co., Belleville, Ill., will be ready for mailing. This will show this firm's very complete line of St. Clair stoves and ranges, including their new goods, and will be forwarded the trade on application. When writing for same kindly add, "Saw it in THE AMERICAN ARTISAN."

The Richmond Foundry & Mfg. Co. are a new Point Richmond, Cal., stove foundry capitalized at $100,000. R. E. Slattery, H. A. Potter, C. W. Adel, F. Reichers and J. H. Barnard are the directors of this concern, and they are erecting a new building 80x160 feet in dimensions. Besides their line of stoves they will make a complete line of hardware specialties.

The Simpson Stove & Mfg. Co., with offices at Pittsburg, Pa., and works at Canonsburg, Pa., are offering the trade exceptional values in gas ranges, hot plates, ovens and cookers which are sold under the name Simpson. They will be pleased to send prices and catalogue to the trade on application. When writing for same, kindly add, "Saw it in THE AMERICAN ARTISAN."

The Hess-Snyder Co., Massillon, Ohio, have built up a large trade in their Boomer furnaces, Boomer steel ranges and various hardware specialties. They are firm in the belief that these goods are the heaviest, most durable, economical and easiest to take care of on the market, and they have spared neither time nor money in constructing them as well as possible. They invite the fullest investigation of their merits by the trade.

The Welling-Bowers Mfg. Co., Lima, Ohio, successors to the Welling Mfg. Co., of Columbus, Ohio, are offering the trade the Peerless flue stopper. This is made with steel wire springs instead of sheet iron stays. It stays where it is put and is absolutely soot and smoke proof. It is made either plain or decorated. This firm would be very much pleased to send miniature samples and prices to dealers on application. When writing for same kindly add, "Saw it in THE AMERICAN ARTISAN."

The Pittsburg Stove & Range Co., Pittsburg, Pa., are now making the Good Luck gas ranges in sizes, which are suitable for hotels and public institutions. The equipment of their 420 Good Luck gas range includes two baking ovens, 20x20x12, two roasting ovens 20x20x10; two broiling ovens for chops, steak, fish and fowl, 20x11x7; two water heaters, eight standard top burners; two long double top burners; Mammoth high closet; needle point valves; draw-out steel ovens and cast iron bodies.

The Evans Stamping & Plating Co., Taunton, Mass., are supplying a number of leading stove manufacturers with their Acme oven thermometers. These thermometers are accurate and durable, and are made in a variety of styles. Styles "C" and "D" are made with 2⅝ in. dial, and have proven markedly satisfactory wherever used. The retail trade find these a very durable specialty to sell to those of their customers who are using stoves and steel ranges, which are not equipped with this up-to-date specialty.

The Portsmouth Stove & Range Co., Portsmouth, Ohio, for whom Morley Bros., Saginaw, Mich., are wholesale agents for Michigan, are very busy supplying the wants of the trade with their Model steel ranges and other goods. These goods are made in a great variety of styles and sizes. They are getting out a very popular line of new four-hole models. Their new Pouch Feed, which is of the latest and best construction, will soon be completed and is an artistic and valuable addition to any range. This firm will be pleased to furnish dealers with their trade literature. When writing them kindly add, "Saw it in THE AMERICAN ARTISAN."

The Sun Stove Co., 1305-1319 Bellevue avenue, Detroit, Mich., send us a circular calling attention to their air-tight heaters, hot-blast smoke-consuming coal stoves. Their air-tight for wood, with hot-blast draft, No. 205, has screw draft register, check draft, steel linings, clean-out at bottom and direct draft. Their hot blast for coal, No. 114, has both central and outer smoke and gas consuming hot-blast drafts, smoke draft registers and draw-out center grate. This firm are makers of a complete line of gasolene and wickless oil stoves, and with their increased facilities and equipment, coupled with their early purchase of material, they will be able to make prompt shipment on all orders for 1903.

A NEW STOVE FOUNDRY.

The newest, up-to-date stove foundry is just being put in operation at Greenville, Ohio. It is a twentieth century production in all respects and a credit to the proprietors of the Royal Stove & Range Company.

The officers of this company, old and experienced stove manufacturers, did not see fit to buy any "bargain counter sale" of an obsolete, worn-out plant which could be "revamped," but with calm, mature deliberation selected a plat of land, eligibly located with exceptionably good railroad and transportation facilities, and they designed their building to include every modern appliance, and so arranged that extensions and enlargements can be made.

The new buildings are equipped with eight motors, every machine having its own separate electrical engine. The equipment is of the finest and most up-to-date of any stove foundry in the land. They have an 85 horse power engine, which furnishes the power for a 60 K. W. generator, this being situated in an engine room 40x40 feet. The mounting building is 86x146 feet, three stories. The molding room is 75x120 feet. They are building a new warehouse, 100x150 feet, three stories high, and office building 24x40 feet, and a fireproof pattern storage vault, 20x40 feet.

All of the buildings are substantially constructed of brick and stone and are so arranged that the receiving and shipping are done from separate, private side tracks connected with the Pan Handle, the Big Four and the Cincinnati Northern railroad systems.

The officers of the company are John H. Martin, president; George W. Mannix, Jr., vice-president; J. W. Baker, secretary; J. R. Martin, treasurer, and George B. Jones, superintendent.

The officers are old, experienced and conservative business men, the secretary and superintendent having been many years in the stove manufacturing business, more recently being connected with the Globe Range Company of Kokomo, Ind.

They have a modern line of steel ranges, steel cooks and heaters, the patterns of which are all original, of handsome design and contain practical, meritorious features. They will have four grades of steel ranges and steel cooks made in every conceivable style, size and combination; four sizes of Royal Oaks and six styles and sizes of hot blasts.

The Royal Stove & Range Company have a new catalogue in preparation which will contain illustrations of this entire new line, and our readers are invited to write for a copy of this new publication. When writing kindly add: "Saw it in THE AMERICAN ARTISAN."

WINNER DOWN-DRAFT STOVE.

The Peck-Hammond Co., Cincinnati, O., for whom the Tuttle-Allen Stove Co., are agents for Kansas, Indian Territory, Oklahoma and Missouri, are manufacturers of the Winner down-draft stove shown in

The Winner Down-Draft Stove.

the accompanying cut. This stove is a specialty that has many points to commend it to the trade, including fire-pot at top of the stove, smoke pipe at base and heat drawn to the floor. Its combustion is simple and practical. Full description will be furnished the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

The Hardware Record.

American Hdw. Mnfs. Assn.
Pres., F. R. Plumb, Philadelphia.
Vice-Pres.—F. S. Kretsinger, Ft. Madison, Ia.; J. C. Birge, St. Louis
Geo. W. Corbin, New Britain, Conn.
S.-T., F. D. Mitchell, Pittsburg.
Ex. Com., Robert Garland, Pittsburg; Henry B. Lupton, Pittsburg; N. A. Gladding, Indianapolis; W. S. McKinley, Allegheny; F. L. Clark; Birmingham; C. W. Asbury, Philadelphia; G. N. Landers, New Britain; C. H. Holt, Cleveland.

Arkansas Retail Hdw. Dealers' Assn.
Pres., John M. Pitman, Prescott.
1st V.-P., J. F. Maxey, Ozark.
2d V.-P., T. B. Stewart, Newport.
Sec., C. E. Taylor, Little Rock.
Ex. Com., H. Williams, Hot Springs; J. H. Bolcourt, Little Rock; E. E. Mitchell, Morrilton; W. M. Graham, Clarendon; R. F. Roys, Russellville.

Chicago Retail Hdw. Dealers' Assn.
Pres., D. McLaughlin.
V.-P., H. E. Gnadt.
Sec., G. R. Lott.
Collector, John Hora.
Treas., J. L. Smith.

Hardware Merchants' and Manufacturers' Assn. of Philadelphia.
Pres William C. Peters.
V.-P., Thomas Devin.
Sec.-Treas., T. James Fernley
Directors, W. W. Supplee, H. McCaffrey, E. S. Jackson, W. C. Peters. S. Disston, E. Fisher, J. H. Ritter, T. Devlin, T. J. Fernley.

Illinois Retail Hdw. Dealers' Assn.
Pres., Charles H. Williams, Streator.
V.-P., W. T. Gormley, Chicago.
Sec., L. Nish, Elgin.
Treas., Geo. A. Engelhardt, Chicago.
Ex. Com., Charles H. Williams, Streator; W. T. Gormley, Chicago; L. Nish, Elgin; Geo. A. Engelhardt, Chicago; William Bittel, Peoria; F. F. Porter, Chicago; H. G. Cormick, Centralia; H. N. Murphy, Galesburg; C. Mauer, E. St. Louis; R. G. Scheurer, Vandalia.

Indiana Retail Hdw. Dealers' Assn.
Pres., E. M. Bush, Evansville.
1st V.-P., A. N. Shidler, So. Bend.
2d V.-P., W. B. Shipley, LaFayette.
Sec., M. L. Corey, Argos.
Ex. Com., M. L. Lewis, Marion; W. P. Lewis, New Albany; Charles Boonshat Petersburg; E. M. Bush, Evansville; M. L. Corey, Argos.

Indian Territory Retail Hdw. Assn.
Pres., J. G. Smith, Canadian.
1st V.P., Fred Parkinson, Wagoner.
2d V.-P., E. C. Stretch, Vinita.

Iowa Retail Hdw. Dealers' Assn.
Pres. S. R. Miles, Mason City
V.-P., L. Lindenberg, Dubuque.
Sec., H. S. Vincent, Ft. Dodge.
Treas., A. C. Vieth, Oakland.
Members Exec. Com., Jacob Seither, Keokuk; J. F. Doty, West Liberty; L. Lindenberg, Dubuque; S. R. Miles, Mason City; G. C. Paulson, Newhall; Paul DeVol, Council Bluffs; C. S. Barger, Albia; L. H. Kurtz, Des Moines; C. R. Keating, Mt. Ayr; L. A. Gnam, Carroll; C. E. Haas, LeMars.

Kansas Hardware Dealers' Assn.
Pres., Oscar Roehr, Topeka.
V.-P., E. J. King, Logan.
Sec.-Treas., J. A. Cole, Topeka.
Ex. Com., F. W. Bartlett, Kansas City; T. H. Kiniry, Beloit; J. M. Walters, Robinson; J. H. Hamilton, Arkansas City; T. J. O'Neill, Osage City.

Kentucky Retail Hardware and Stove Dealers' Association.
Pres., W. T. Oldham, Mt. Sterling.
1st V.-P., W. S. Shacklett, Fulton.
2d V.-P., Jos. C. Kirchdorfer, Louisville.
Sec., Paul Wagner, Louisville.
Treas., Henry Heick, Louisville.

Michigan Hardware Association.
Pres T. Frank Ireland, Belding.
V. Pres., John Popp, Saginaw.
Sec., A. J. Scott, Marine City.
Treas., H. C. Weber, Detroit.
Ex-Com., J. B. Sperry, Port Huron; F. A Turner, Caro; J. G. Patterson, Detroit; F. S. Carlton, Calumet; S. E. Hunt, Detroit; Samuel Winchester, Jackson; Fred S. Cook, Fowlerville; C. E. Pipp, Otsego; A. Harshaw, Delray; A J. Scott Marine City.

Minnesota Retail Hardware Assn
Pres., W. H. Tomlinson, LeSueur
V.-P., H. S. Cleveland, Minneapolis.
Treas., W. E. Barto, Long Prairie.
Sec., M. S. Matthews, Mnpls.
Exec. Com., W. H. Tomlinson, Le ueur; H. S Cleveland, Minneapolis; F. E. Hunt, Red Lake Falls; Benj. F. Kernkamp, St. Paul; C. H. Hornburg, New Ulm; J. Cowing, Alexandria; C. H. Casey, Jordan; C. F. Ladner, St. Cloud; J. Schmidt, Wabasha; A. T. Stebbins, Rochester; J. McGuire, St. Paul.

Missouri Retail Stove and Hardware Dealers' Association.
Pres., Tayler Frier, Louisiana.
V.-P., E. L. Wachter, St. Louis.
Sec., F. N. Neudorff, St. Joseph.
Ex. Com., J. W. Poland, Carrollton; F. N. Kannsteiner, St. Louis; W. T. Shoop, Richmond.

National Hardware Association.
Pres., R. A. Kirk, St. Paul.
1st V.-P., John C. Koch, Milwaukee.
2nd V.-P., Brace Hayden, San Francisco.
Sec.-Treas., T. James Fernley, Philadelphia.
Ex. Com., John Freeman, Detroit; Samuel B. Bigelow, Boston; P. E. Strauss, Boston; J. D. Moore, Birmingham; R. M. Dudley, Nashville; W. S. Wright, Omaha.
Advisory Board, W. W. Supplee, Philadelphia; H. H. Bishop, Cleveland; John Bindley, Pittsburg; R. W. Shapleigh, St. Louis.

Nebraska Retail Hdw. Dealers' Asn.
Pres. C. A. Peterson, Oakland.
1st V.-P. Nathan Roberts, Omaha.
d V.-P. Alex Meyer, Hastings.
3d V.-P. Frank Hacker, Friend.
Sec.-Treas., Harry Hall Lincoln.

National Retail Hdw. Dealers' Asn.
Pres., W. P. Bogardus, Mt. Vern n, O.
V.-P., C. H. Miller, Pennsylvania.
Sec., Treas., M. L. Cor y, Argos, Ind.
Ex. Com, H. G. Cormick, Centralia, Ill.; Sharon E. Jones, Richmond, Ind.; T. F. Ireland, Belding, Mich.; L. Lind nberg, Dubuque, Iowa; A. T. Stebbins, Rochester, Minn.

N. Dakota Retail Hdw. Dealers' Asn.
Pres., H. N. Joy, Hamilton.
1st V.-P., H. F. Emery, Fargo.
2d V.-P., Frank Lish, Dickinson.
3d V.-P., H B. Allen, Jamestown.
Sec., C. N. Barnes, Grand Forks.
Treas., W. H. Pinkerton, Lakota.
Ex. Com., E. E. Elliott, Sanborn; H. F. Strehlow, Casselton; Hurbert Harrington, Fargo.

Ohio Hardware Association.
Pres., W. P. Bogardus, Mt. Vernon.
V.-P. J. F. Baker, Dayton.
Cor. Sec., D. R. Burr, Piqua.
Fin. Sec., W. C. Jones, Columbus.
Treas., H. A. Waller, Ravena.
Ex. Com. F. A. Powers, Norwalk; Geo. Hartke, Cincinnati; E. Fisher, Wapakoneta; J. C. Snyder, Ironton; E. M. Potter, Cleveland.

Pennsylvania Retail Hdw. Assn.
Pres., Geo. L. Moore, Brownsville.
V.-P., Geo. J Rudolph, Pittsburg.
Sec., J. E. Digby, McKees Rocks.
Treas., B. A. Maggine, Braddock.
Ex. Com., E. E. Lyon, Greensburg; C. N. Savage, California; B. A. Maggine, Braddock; C. O. Shroyer, Dawson.

St. Louis Stove Dealers' Assn.
Pres., Wm. H. Hahn.
1st V.-P., G. A. Pauly.
2d V.-P., E. L. Wachter.
Sec., Louis Boehl.
Treas., E. Wertz.

Southern Hardware Jobbers' Assn.
Pres., F. A. Heitman, Houston.
1st V.-P., Col. B. F. Eshelman. New Orleans.
2d V.-P., John Donnan, Richmond, Va.
Sec., C. B. Carter, Knoxville
Ex. Com., W. M. Crumley, Atlanta, Ga.; O. B. Barker, Lynchburg, Va.; Chas. H. Ireland, Greensboro, S. C.; C. S. Speer, Hot Springs Ark.

Texas Hardware Jobbers' Assn.
Pres., J. C. Bering, Houston.
1st V.-P., J. Burnside, Ft. Worth.
2d V.-P., J. Taylor, Sherman.
Sec.-Treas., R. Bell, Weatherford.

Wisconsin Hdw. Dealers' Assn.
Pres., L. Findiesen, Green Bay.
V.-P., H. L. McNamara, Janesville.
Sec.-Treas., C. A. Peck, Berlin.
Ex. Com., J. Kornelly, Milwaukee; E. H. Ramm, New London; H. S. Scofield, Sturgeon Bay; R. Murdoch, Beloit.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 36 to 40 inclusive.

The Alfred Bacon Hardware Co., Ltd., are a new Bay City, Mich., concern.

The foundry of Cooper & McKee, Brooklyn, N. Y., was recently visited by a slight fire.

The Mize Hardware Co., Independence, Mo., have increased their capital stock to $10,000.

The Rolling Weight Scales Co. are a new Wilmington, Del., concern capitalized at $300,000.

E. W. Hansen has purchased an interest in the Moorhead Hardware Co., Moorhead, Minn.

Meeker & Spaid succeed Latchau Bros. in the hardware and store business at McComb.

It is said that the American Steel & Wire Co. will erect a Canadian branch at Port Colborne.

Geo. Warner, 207 Lincoln avenue, Chicago, is placing a new automatic gate latch on the market.

Robert J. Cook, a Mt. Vernon, O., hardware dealer, committed suicide on May 21st by shooting.

The Hess Mfg. Co. are a new Cleveland, O., concern who will manufacture wire. They are capitalized at $250,000.

Pull Bros., Melbourne, Ia., hardware dealers, have filed a petition in voluntary bankruptcy. Their liabilities are $5,820.

The Vogel Hardware Co., 1904-1912 Frederick avenue, St. Louis, Mo., were recently damaged by fire to the extent of $6,000.

Horace Mitchell is president and A. M. Meloon is treasurer of the Cutter Nail Co., Kittery, Me., capitalized at $500,000.

Eastwood & Chase, Monticello, Ia., hardware dealers, are out of business. Their old stand will be taken July 1 by Geo. W. Davis.

Samuel Schilling, an Alma, Wis., hardware dealer, filed a petition in bankruptcy May 23. His assets are $9,192 and liabilities $10,711.28.

Haas & Hohmann have purchased the stock of the Kaukauna Hardware Co., South Kaukauna, Wis., and will incorporate it with their own.

The Chain Makers' International Union of the United States of America will hold their next annual meeting at Columbus, Ohio, on June 1st.

R. M. Dudley, president of the Gray & Dudley Hardware Co., Nashville, Tenn., has been taking a vacation at French Lick Springs, Ind.

J. E. F. Connelly is president and Z. Jackson is treasurer of the Atlas Gas Engine and Truck Co., Portland, Me., capitalized at $350,000.

Melvin Barber, David Larimer and J. W. Henderson are the incorporators of the Barber Wrench Co., Oklahoma City, Okla., capitalized at $10,000.

Leo A. Peil, Jesse P. Van Doozer and C. C. Naylor are the incorporators of the Racine Engine & Iron Works, Racine, Wis., capitalized at $100,000.

W. P. Hatchett and W. H. Da Camara are the in-

corporators of the Hatchett-Da Camara Hardware Co., West Palm Beach, Fla., capitalized at $30,000.

James A. Brown, Adelbert F. Brown and Davis Barkley are the incorporators of the James A. Brown Hardware Co., Fort Collins, Colo., capitalized at $20,000.

Elisha H. Mack died at Erie, Pa., recently in his 86th year. For a number of years he was interested in the hardware firm of Harmon & Mack, Weedsport, N. Y.

A recent fire at Kenton, O., completely destroyed the plant of the Kenton Hardware Mfg. Co., causing a loss of $75,000. The fire is believed to have been of incendiary origin.

The Cutler Hardware Co., Waterloo, Ia., wholesale hardware dealers, commenced work on May 21 on the large two-story fireproof warehouse in that city. This building will be 32x60 feet in size.

G. J. Markley, T. E. Wilson, Wm. Tracy, A. Tverdahl and A. Downs are the incorporators of the Enterprise Mfg. Co., Mineral City, Mo., capitalized at $25,000 for the manufacture of laundry irons.

The City Hardware Co., Little Rock, Ark., have purchased the retail department of the Fones Bros. Hardware Co. of that city. This latter concern will continue in the wholesale hardware business exclusively.

It is said that the United States Steel Corporation has practically closed a contract with the Bessemer Association of Western Pennsylvania and Western Ohio, for something like 200,000 tons of pig iron for delivery in the latter half of the current year.

The Taylor & Boggis Foundry Co., Cleveland, Ohio, are manufacturers of an interesting line of hardware specialties, including light gray iron castings, builders' hardware, dampers and damper clips, oil and gas stoves, brass lamps, molasses cups, letter boxes, etc.

D. R. Sperry & Co., Battle Creek, Mich., are manufacturers of the popular Sperry steam kettles. These are made from very thick metal, without stay joints, and are packed in such a manner as to never need repacking. They are safe and tight and are deservedly popular with the trade.

George Anton, P. O. Box 64, Monongahela, Pa., who has been in the manufacture of lamps for 30 years, is offering the trade a miners' lamp that gives eminent satisfaction. The Globe lamp has a globe and this firm's name stamped on it. They also make the Star miners' and drivers' lamp.

A petition was filed in the United States Circuit Court at Springfield recently to have the Barnett Hardware Co., Decatur, Ill., adjudged bankrupt. C. M. Barnett, Decatur, the principal stockholder in this company, filed a petition in bankruptcy scheduling liabilities of $15,454.26 and assets of $7,500.

Theodore P. Huffman & Co., 648 West Thirty-fourth street, New York, is headquarters for excelsior in this country. He is prepared to furnish this superior packing article in any quantity desired promptly and will be pleased to correspond with the trade in want of either large or small quantities of same.

The Voss Bros. Mfg. Co., Davenport, Ia., are meeting with an unusual active demand for their popular Ocean Wave washers, which are light running, handsome, well made and adjustable for high or low speed. They are sold only to one dealer in each town. This firm have 2,000 established exclusive agencies for these goods.

The Bridgeport Gun Implement Co., Bridgeport, Conn., with agency at 313 Broadway, New York City, are meeting with marked success in their sales of the Tomlinson cleaner, which, it is claimed, is a most satisfactory means of thoroughly cleaning a shot gun. It will absolutely remove rust spots, and will fit any standard rod and any gun.

The Davison Mfg. Co., 110 Front st., Brooklyn, N. Y., are makers of a very clever novelty in the shape of model wrenches with either ebony, ivory, coral or amber handles. These wrenches are about 1¼ inches long, but the mechanism of this miniature tool is perfect. It makes a very pleasing novelty for a dealer to present to his good customers.

The Fred J. Meyers Mfg. Co., Hamilton, O., are manufacturers of the well-known Hunter's sifters. This sifter has a loose cap on the handle, so as to clean out the flour that accumulates in it while the sifter is in use. This sifter is very desirable as a combined mixer, scoop, measure, dregder, rice waster, pumpkin, tomato, wine, starch and fruit strainer.

The P. H. Gross Hardware Co., 126-128 Grand avenue, Milwaukee, Wis., recently shipped the complete hardware furnishings and trimmings for the residence to be erected at Bonn, Germany, by Oscar Thillmany, formerly of Kaukauna, Wis. The bill of goods will amount to something over $2,000 and will include all the door fastenings, hinges, ebows, butler's pantry furnishings, etc.

The North Bros. Mfg. Co., Philadelphia, are making a decided drive on their Lightning, Gem and Blizzard ice cream freezers. These freezers are convenient, compact in size, use a very small amount of ice and salt, run easily, freeze quickly and produce smoothly frozen creams or desserts. They are claimed to be the only freezers made having cedar pails with electric welded wire hoops, cans of heavy tin with drawn steel bottoms and automatic twin scrapers.

The Blacklock Foundry, South Pittsburg, Tenn., make a very complete line of sad irons, which are of black japan or finished plain as desired. A specialty of their manufacture is their sleeve or flouncing sad iron, which has a blunt end so shaped as to insure perfection of work and perfect freedom from destruction of garments by snags, etc. These irons are made in two sizes, three and found pounds each, the bodies being coated with a heat-proof aluminum enamel. The face, sides and heel are highly polished.

The F. A. Herrick Co., Jackson, Mich., offer the trade an extensive line of special apparatus for the superior display of hardware goods, including Herrick's tool racks, tool brackets, sampling hooks, hammer and hatchet cases and screw cases. Dealers will find that these cases will enable them to display a good variety of goods in the most attractive manner,

thus saving time in making sales and enabling the hardware dealer to keep a much greater variety of goods, where they can be seen by prospective purchasers.

The farm implement manufacturers outside the International Harvester Co. have complained to President Roosevelt that they must pay tribute to the following combines every time a machine is made: Standard Oil Co., iron tubing, spoke and rim, wire nail, rope and twine, paper box, white lead, rivet, belting (or leather), lumber, paint brush, link chain, spring cotter, emery wheel, electrical machinery, foundry core flour, borax, salt, window glass, rubber, wood-working machinery, pig iron, steel spring, wire tube, screw, sand paper, solder, steel wheel, coal and the railway.

The Horigan Supply Co., St. Joseph, Mo., are manufacturers of the Horigan waterworks, which enable every farmer and suburbanite to own his own water system. A Horigan air-crown tank placed in the cellar and connected with well or cistern will deliver hot or cold water to all parts of the house whenever wanted, in any quantity desired. It will throw a stream of water over the tallest building, giving protection against fire. This system opens up a new field of business which enterprising dealers will be quick to take advantage of. An illustrated circular will be sent the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

The J. Stevens Arms & Tool Co., 245 Broadway, Chicopee Falls, Mass., advise us that they have added to their line of double-barrel guns a new number, No. 260, which will be the same as the No. 250, except with twist barrels. They have also added No. 270, with Damascus barrels. These new guns will be ready for shipment in about a month. They have also made material additions to their line of single-barrel guns with twist barrels, which they will be able to furnish in about a month on other of their guns on special order. This firm are enjoying a heavy demand for their Stevens-Duryea gasoline carriage, and advise us that they are three months behind their orders.

The old Nordberg shops, leased and equipped by Pawling & Harnischfeger, Milwaukee, Wis., crane and hoist builders, to replace their erecting shop burned April 15, have placed them in as good shape to build cranes as prevailed before their fire.

Prominent among their recent orders are the following: American Stone Co., Brooklyn, N. Y., two cranes; Milwaukee Bridge Co., Milwaukee; the Louisville Railway Co., Louisville, Ky.; Louisiana Purchase Exposition, St. Louis; the Ingersoll-Sergeant Drill Co., Easton, Pa., two cranes; the Milton Mfg. Co., Milton, Pa.; the Vilter Mfg. Co., Milwaukee; American Road Machine Co., Kennett Square, Pa.; the Stilwell-Bierce & Smith-Vaile Co., Dayton, O., two cranes; the Mahoning Foundry & Machine Co., Youngstown, O.; New York Shipbuilding Co., Camden, N. J.; the McConway & Torley Co., Pittsburgh; Sterrit-Thomas Foundry Co., Pittsburgh; Standard Oil Co. of New York, Atlas Works, Buffalo; Pennsylvania Engineering Works, New Castle, Pa.; Metropolitan Street Railway Co., Kansas City, two cranes; Jefferson & Clearfield Coal & Iron Co., Ernest, Pa.; International Harvester Co., Hamilton, Ont.; Gould Coupler Co., Depew, N. Y., three cranes; Helena Light & Traction Co., Helena, Mont.; American Sheet Steel Co., Pittsburgh, two cranes (one special); Allis-Chalmers Co., Milwaukee, two cranes; Howard Iron Works, Buffalo; American Bridge Co., Ambridge Works, Economy, Pa.; La Belle Iron Works, Steubenville, O.; Bradley Mfg. Co., Pittsburgh, and the New York Edison Co., New York.

THE ROESCH AUTOMATIC RURAL DELIVERY MAIL BOX.

The accompanying cuts show the Roesch automatic rural delivery mail box manufactured by the Roesch Mfg. Co., 387 New York street, Aurora, Ill. This firm are putting in a number of latest improved presses and other machinery and will be in the best possible position to fill the wants of the trade. They point out that the demand for these goods between now and June 1, 1904, will approximate 2,000,000, as 15,000 new routes will be opened, with an average of 60 to 600 names per route. This box is 19 inches long, 10 inches high and 8 inches wide.

Showing Roesch Automatic Rural Delivery Mail Box Open.

Showing Roesch Automatic Rural Delivery Mail Box Closed.

It is made of 22-gauge galvanized iron and is thoroughly tested and of great strength. The bearings are of steel and the box is heavily braced by 3-16-inch band iron. The box is in the shape of the ordinary drop box used in the cities. The inside of the box is in the shape of a half cylinder, open at the top, and when revolved the opening is exposed for the insertion or withdrawal of mail.

The construction of the automatic box is such that when the cylinder is revolved the opening is presented, but when released the back of the cylinder acts as a weight in pulling it back into place, the cylinder being hung off the center. There are no hinges or springs used, so there is absolutely nothing to get out of order.

When the box is opened an automatic signal drops by its own weight so as to present a surface four inches in diameter, which is left in view until pushed back either by the one who removes the mail or the carrier. This signal is painted red and when not in use is under cover; no sleet or snow can reach it.

The automatic box has the side opening recommended by the government, and conforms in every way to the requirements of the postoffice department.

The box is so constructed that it projects eight inches from the post to which it is attached, so that the carrier can drive close without striking hub or whiffletree and he need not leave wagon to get at the box. He need use but one hand to open box and handle mail.

HARDWARE MEN EAT SHAD.

On the evening of May 21 the employes of Supplee Hardware Company, Philadelphia, were treated to a shad dinner as guests of the president. At 5 o'clock in the evening they gathered at the banqueting hall of the Philadelphia Bourse restaurant to the number of one hundred twenty-eight, and sat down to the following menu:

Planked Delaware Shad.
New Potatoes. Cucumbers. Fresh Peas.
Bermuda Onions. Radishes.
Asparagus.
Lettuce and Tomatoes.
Strawberries and Ice Cream. Fancy Cakes.
Cafe.
Cigars. Appollinaris.

During the serving of the dinner instrumental music and songs were furnished by local professional talent, after which cigars were lit and remarks were listened to from the president and various members of the company and employes.

Mr. Supplee received a very handsome pair of field glasses as a testimonial of the high regard of his coworkers, and an expression on their part that his proposed trip across the water might be both pleasant and beneficial to him.

Regret was expressed by the president and others that it was not possible to have included the numerous force of salesmen among those who participated in the joyful occasion.

IMPORTANT RESOLUTIONS.

The Executive Committees of the National Retail Hardware Dealers' Association and the National Hardware Association held one of the most important conferences in the history of the trade at the Hotel Walton last week. At this meeting the following far-reaching resolutions were passed:

RESOLUTION PASSED BY EXECUTIVE COMMITTEE NATIONAL RETAIL HARDWARE DEALERS' ASSOCIATION.

The executive committee of the National Retail Hardware Dealers' Association desire to and do hereby extend their heartfelt thanks to the executive committee of the National Hardware Association for their kind invitation to meet them in a joint conference for the purpose of discussing the various methods that at present prevail regarding the distribution of hardware throughout the country; and

Whereas, We believe that we have at this conference laid the foundation for a better understanding as to those methods which will be productive of much good, to both the jobbers and retailers, now, therefore, be it

Resolved, That we do hereby pledge our best efforts to the continuation of the work now so well begun and will heartily co-operate with the National Hardware Association in the future in all matters that will tend to accomplish results that will be of mutual advantage to both associations.

RESOLUTION PASSED BY EXECUTIVE COMMITTEE NATIONAL HARDWARE ASSOCIATION.

Whereas, at a conference between the officers and a special committee of the National Retail Hardware Dealers' Association and the officers and executive committee of the National Hardware Association, our attention has been called to certain evils which confront the retail trade; and

Whereas, We realize that our interests are mutual and that one branch of the hardware trade cannot be injured unless the other is affected; therefore,

Resolved, That we reaffirm our previously expressed friendly feeling toward the National Retail Hardware Dealers' Association and assure them of our desire as an association of jobbers, from whom they largely purchase, to lend them the power of our organization in correcting abuses which confront them.

HARDWARE HOUSES COMBINE.

The Gray & Dudley Hardware Co., Nashville, Tenn., and the Mayberry Hardware Co., Birmingham, Ala., have consolidated. The new company will be known as the Gray & Dudley Hardware Co. and will be officered as follows: R. M. Dudley, president; John M. Gray, Jr., vice-president; H. H. Mayberry, second vice-president; R. H. Dudley, Jr., secretary, and John T. Jenkins, treasurer. In addition H. H. Mayberry and W. A. Chenoweth will be elected directors, and Mr. Mayberry will have charge of the Birmingham house. W. F. Stephenson, who has been with the Gray & Dudley Co. ever since it was organized, and who now has charge of the mail order department, will probably go to Birmingham as assistant manager. All of the old employes of both houses will be retained and a number of new ones will be added.

SOUTHERN JOBBERS AT SARATOGA.

We acknowledge the receipt of an invitation to be present at the thirteenth annual convention of the Southern Hardware Jobbers' Association at the Grand Union Hotel, Saratoga Springs, N. Y., July 14-17, inclusive.

Secretary Carter extends an invitation to salesmen of various firms in the association to attend the convention, and adds that many members and visitors will be accompanied by ladies.

The plan adopted at the twelfth annual convention of this association at Atlantic City, N. J., last June, of numbering and indexing all who attended, in advance of their arrival, proved so satisfactory and acceptable to all interested that the executive officers have decided to continue the arrangement upon the same basis, which is as follows: Each delegate and visitor will be given a number, and from these numbers an index will be prepared, copies of which will be printed and distributed to all who attend the convention. The object of this being to forestall the chance of any one in attendance at the meeting being unacquainted with the

name, address and occupation of any one present. To accomplish this result special button badges are being prepared, numbered consecutively from one to eight hundred—the index, of course, being similarly numbered and also alphabetically arranged. These buttons are to be forwarded to the delegates and visitors in advance of the meeting, and they will be expected to wear the button from the time they leave home until the convention adjourns. The object of this is that strangers traveling together to the convention may make themselves known to each other, in order that the trip may prove pleasant by reason of the friendship which would naturally be formed by reason of this knowledge.

AVERAGED OVER 95 PER CENT.

At the Pennsylvania state shoot May 18-19-20, some very remarkable shooting was done by James Atkinson of New Castle, Pa. Mr. Atkinson won the high average in the open amateur events, also high average in the state events, and the combined general average, and tied the winner of the state championship. In the regular events shooting at 500 targets he scored 476, an average of over 95 per cent.

Mr. Atkinson used Peters Ideal factory loads, manufactured by the Peters Cartridge Co., Cincinnati, O.

"BOSS" INTERNAL GEAR WITH CORRUGATED CYLINDERS.

The Boss Washing Machine Co., Cincinnati, O., are manufacturers of the Boss washers, a leading feature of which is the Boss internal gear with corrugated cylinders shown herewith.

"Boss" Internal Gear with Corrugated Cylinders.

The outer sides of upper cylinder and inner sides of lower cylinder have deep corrugations in addition to corrugations on the lower sides of the half segments. There is a space of one and five-eighths inches on either side between the width of the cylinders. This increase of space allows an increase in capacity. The increased rubbing surface with the additional space for capacity permits of increased agitation and thorough passing of water through the clothes, thereby cleansing clothes quickly and thoroughly, and with good suds water; each operation of about twelve minutes will cleanse the above stipulated capacity. The lower cylinder is made detachable from patent hook and journal bearings, for the purpose of quick adjustment, cleansing and drying machine after use. The castings comprising the principle are all within the casing of the machine, protecting them against breakage when shipping or otherwise. Castings underneath cover are all heavily galvanized and are self-lubricant, through coming in contact with the soaps. This being an important feature, as it does away with any possibility of grease spots getting on to garments. The entire body of machine is constructed of Louisiana red cypress lumber in natural wood finish.

LITTLE JOURNEYS.

Little Journeys to lake resorts and mountain homes will be more popular this summer than ever. Many have already arranged their summer tours via the Chicago, Milwaukee & St. Paul Railway and many more are going to do likewise. Booklets that will help you to plan your vacation trip have just been published, and will be sent on receipt of postage, as follows: "Colorado-California," six cents. "In Lakeland" and "Summer Homes," six cents. "Lakes Okoboji and Spirit Lake," four cents. F. A. Miller, General Passenger Agent, Chicago.

Christian Glassen, Chas. Rebbein, Joseph Weinzerl, Wm. Smith and Ignatz Brandi are the incorporators of the St. Bonifacius Canning Co., St. Bonifacius, Minn., capitalized at $9,000.

BUSINESS CHANGES.

NEW FIRMS.

Argenta, Ark.—Hunter Ellis.
Baltimore, Md.—The Francis Albert Co.
Beverly Farms, Mass.—T. J. McDonnell.
Brockton, Mass.—Rounsville & Rossiter.
Brooklyn, N. Y.—The William B. Sing Co.
Clinton, Ill.—H. G. Beatty & Co.
Denver, Colo.—E. M. Miller-Shaw Hardware Co.
Dunn, N. C.—The Wade Hardware Co.
Forsythe, Mont.—The Forsythe Hardware & Saddlery Co.
Kingfield, Me.—C. F. Thurston.
Leger, O. T.—Bonebrake-Hightower Co.
Lumberton, N. C.—The McAllister Hardware Co.
Mars, Pa.—Craig-Kennedy Hardware Co.
Maryville, Mo.—The Pickens, Diss & Smith Hardware Co.
Newburyport, Mass.—Moody Bros.
New Hartford, N. Y.—M. E. Hastings.
Paterson, N. J.—J. W. Cleveland Hardware Co.
Utica, N. Y.—Robert Williams.
Van Buren, O.—Will Bolton and George Bushwood.
Youngstown, O.—Will C. Johnson.

CHANGES.

Auburn, N. D.—M. Skjulstad succeeds W. W. Lloyd.

Batavia, Ill.—Kinne & Jeffrey Co. succeed the Batavia Hardware Co.

Beatrice, Neb.—J. O. Blauser is about to erect a new hardware store.

Brookville, Pa.—G. A. Pearsall succeeds E. E. Pearsall.

Genesee, Ida.—W. J. Herman is succeeded by H. A. Morgan.

Lewiston, Ida.—The Fletcher Hardware Co. are succeeded by Ninneman Bros.

Middletown, Pa.—Ettle & Co. have sold out.

Moline, Ill.—E. W. Ressingbigler succeeds R. L. James.

Mt. Pleasant, Ia.—S. S. Case succeeds Wm. Rukgaber & Co.

Mt. Vernon, O.—Wm. Bird is succeeded by Dan K. Bird and Chas. A. Bird.

Oakland, Md.—J. M. Davis & Sons are about to erect an addition to their building.

Heating and Ventilating

The American Ventilating Co. are a new New York city concern capitalized at $150,000.

The Kalamazoo Valve Co., Kalamazoo, Mich., are a new concern who will manufacture a non-leaking steam valve.

The National Association of Journeyman Steam & Hot Water Fitters will hold their next annual meeting at Louisville, Ky., on June 1st.

Wm. Taylor, Louis E. Conroy and Clifton D. Stevens are the incorporators of the Taylor Heating & Plumbing Co., Muskegon, Mich., capitalized at $10,000.

Burglars at work in the establishment of the Scott Steam Valve Co., 52 W. Randolph st., Chicago, were caught recently as they were about to leave with $200 worth of plunder.

The United Association of Plumbers, Gas Fitters, Steam Fitters and Steam Fitters' Helpers will hold their next annual convention at Birmingham, Ala., on August 17th next.

W. H. Cochrane, L. F. Robinson and M. T. Bennett are the incorporators of the Bartlett Furnace & Range Co., Hartford, Conn., incorporated with a capital stock of $100,000.

The Chappell Furnace Co., Morenci, Mich., are meeting with marked success in their sales of the Chappell furnace. This is an all cast iron furnace, which burns long wood or coal; has seamless radiators, long fire travel and only eight joints.

The Henry & Scheible Co., 6, 8, 10 Long st., Cleveland, Ohio, are makers of the popular Moncrief warm air furnace. This is an all cast iron furnace, and has among its special features the Concrief duplex grate, large radiating surface, double fire pot, large grate surface and top return flue. It is simple, durable and economical.

J. H. Manny of the Chicago office of the Boynton Furnace Co., 147-149 Lake st., Chicago, will take a much-needed vacation, and will sail for Europe from Montreal on the Tunisian on June 27th. This firm are redecorating and repapering their Chicago office. They will also put in a handsome new steel ceiling. These changes will give them more light, and will make their office much more attractive.

R. J. Schwab & Sons Co., Milwaukee, Wis., are manufacturers of the Gilt Edge Furnace, and northwestern distributors of Jones' side wall registers. This register, it is claimed, is the only one having the full capacity of the hot air pipe for large living rooms or for heating a room on the first floor and extension to the second. It has a face of neat design, and a regulator that holds the damper permanently in position. A double safety box is included in each register.

The S. M. Howes Co., 40-46 Union st., Boston, Mass., are manufacturers of the Yankee improved all-steel damper, which is growing in popularity with each succeeding year. It is easily put in and taken out of the pipes, is a very stiff, quick working and neat damper, and is offered at a very attractive price. The rod has a wood enameled handle, which cannot come off; the washer and spring cannot fall off the rod; the same size of holes are punched on each side of the pipe. The rod is made of 1¼ inch cold rolled steel and slips into the damper very smoothly.

The Craig-Reynolds Foundry Co., Zenas A. Craig, president, for whom John Kontny, 153-159 South Jefferson st., Chicago, is western agent, are offering the trade the Triumph furnaces and heaters. The Triumph steam heaters are constructed absolutely correct from a mechanical standpoint. They are so arranged that each size heater is provided with an exact amount of heating surface to grate surface necessary to absorb the greatest amount of heat produced by the fire. The Triumph hot water heaters are so constructed that the circulation of the water through the vertical ways is ever rapid, and the water service is very positive and effectual. They have a uniform and mild clean and delightful heat, and there is an independent positive internal circulation, each section being a perfect boiler in itself.

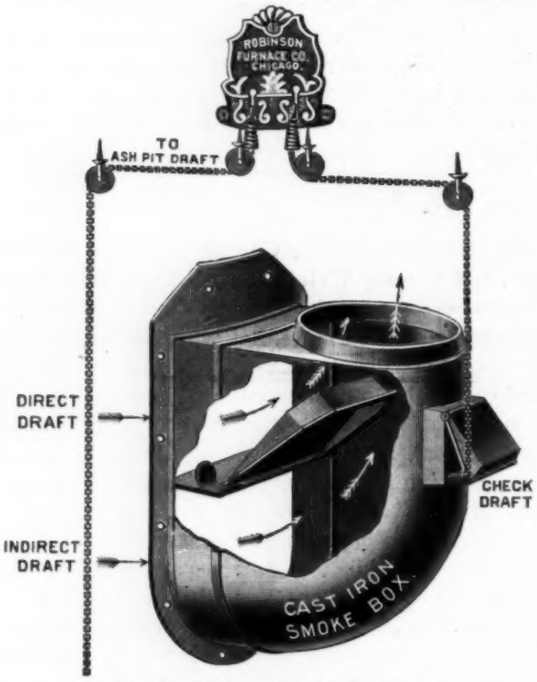
BOYNTON FURNACES.

The Boynton Furnace Co., 147-149 Lake st., Chicago, and 207-209 Water st., New York, send us the western edition of their catalogue showing a complete line of warm air furnaces, hot water and steam heaters, including Boynton's new "Patriot" furnace for hard coal with wrought or cast iron radiator for brick set or portable form; Boyton's new "Patriot" furnace for soft coal, all cast iron, with direct and indirect draft and soft coal burning air injectors; Boynton's new "Niagara" furnace for hard coal with wrought or cast iron radiator; Boynton's new "Niagara" furnace with cast radiator for soft coal only; Boynton's improved Crusader hard coal furnace portable or brick-set, with indirect draft only; Boynton's new Crusader soft coal furnace, portable or brick-set, with direct and indirect draft and soft coal burning air injectors; Boynton's new steel dome return flue furnace for hard or soft coal or wood with cast fire pot and cast radiator; Boynton's new "Renown" portable furnace with steel cased radiator with cast iron tubes; Boynton's improved new gas tight portable furnace for hard or soft coal or natural gas, with cast iron return flue radiator; Boynton's new Climax portable or brick-set furnace with new patent double hot-air blast attachment specially adapted for burning soft coal; Boynton's new steel dome return flue furnace, portable or brick set with new patented double hot-air blast attachments specially adapted for burning soft coal; Boynton's new Climax furnace, portable or brick-set, for hard or soft coal or natural gas; Boynton's new steel dome single return flue furnace with cast iron fire pot and heavy steel plate radiator; Boynton's new Champion brick set wood-burning furnace, with fire chambers 5 feet long and ash pit under grate; Boynton's new Champion portable wood furnace with heavy steel plate return flue radiator, with very large feed door, fitted with drop and slide drafts on ash pit door for chain attachments; Boynton's Champion extra wood burning furnace; Boynton's new gas-tight combination hot air and hot water heater; Boynton's

new "Crusader," combination hot air and hot water heater; Boynton's new steel dome combination hot air and hot water heater; Boynton's Fire King air-circulating room heater, and Boynton's double duty steam and water heaters. One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

CAST IRON SMOKEBOX WITH DAMPER.

The accompanying cut shows a sectional view of the cast iron smokebox with damper, also check draft and chain plate, used in the Robinson tubular furnaces, made by the Robinson Furnace Co., 107-109 Lake street, Chicago. When damper is turned back, smoke



Cast Iron Smokebox with Damper.

enters pipe direct, but when it is closed the smoke divides at rear and makes two complete circuits of radiator around flues before entering exit. The check draft is operated by chains from floor above, and these regulators have proven very satisfactory.

The hot blast attachment draws air in at the rear of smokebox, heated and discharged over fire, thus consuming all gases, thereby increasing the heating capacity of furnace. It is supplied with all of this firm's 1901 steel furnaces.

MASON HEATERS

The Mason Heater Co., Bellaire, Ohio, send us their neat catalogue, which plainly elucidates the many superior features of the Mason heater. The base is of oblong shape. The ash box as well as all other sections requiring joints are provided with expansion and slip joints. The greater part of the mechanism for operating the grate is cast solid with the ash-box. The fire-box is of oblong shape with square corners. To make their casing air tight they have double columns at either corner of the square. These columns, in addition to the outside, have an inside flanged piece running their full length and loosely attached to outside columns by three small bolts. The four sides of casing being placed into position, the bolts are tightened, bringing the inner column tight and clamping casing between the two columns, making it perfectly air tight. The casing is formed square, with small flange on edge of sides and top. These flanges on casing engage flange on inside of column, holding casing in position until all are tightened up. The flanges at sides of sheet are turned in, while that at top are turned out.

This top flange permits the flat bottom of rim to rest upon it, and when casing crown is placed in position, may be, if desired, firmly bolted through top rim and through flange on crown. This top rim is flat on top and is provided with small flange one inch from inner edge of rim. The casing being flanged to suit this top surface when placed in position, is forced out against this flange and the greater downward pressure upon crown serves to make it more tight and less liable to leakage.

NEW FURNACE CATALOGUE.

The March-Brownback Stove Co., Pottstown, Pa., send us their latest furnace catalogue. This is a handsome volume, printed on super-calendered paper and worthy of the highest praise for its dainty press work, clear-cut half-tones, etc. Its subject matter makes it a virtual treatise on warm air heating, and from its letter on the new Crown low-down warm air furnace on pages 2 and 3 to its model advertisement on the last page it is replete with interest to the furnace fraternity.

Articles in this catalogue tell "How to Best Determine Sizes of Warm Air Supply Pipes Used in Connection With a Ventilating Apparatus," "Capacities of Heat Pipes and Registers," "Method of Cold Air Supply to Warm for Furnaces," "Causes of Failure in Warm Air Furnaces," "Heating and Ventilation of Schools and Churches," "Cellar Foundation Walls," etc. The special selling points of the Crown "Low-Down" furnace are as follows:

The smoke curtain prevents escape of smoke or gas when supplying or stoking fuel—a great advantage, especially in burning soft coal.

The front slide between ash-pit and feed section, working automatically, always admits air to the front of fire-pot, and whilst adding to its durability, it also prevents the cast front from becoming unduly heated.

In the Circular furnace, by reason of the large feed door and short feed neck, wood may be readily used.

All "Low-Down" furnaces are readily cleaned while furnace is in operation, being practically self-cleaning furnaces. Being "low down," they heat at long distances and do it economically.

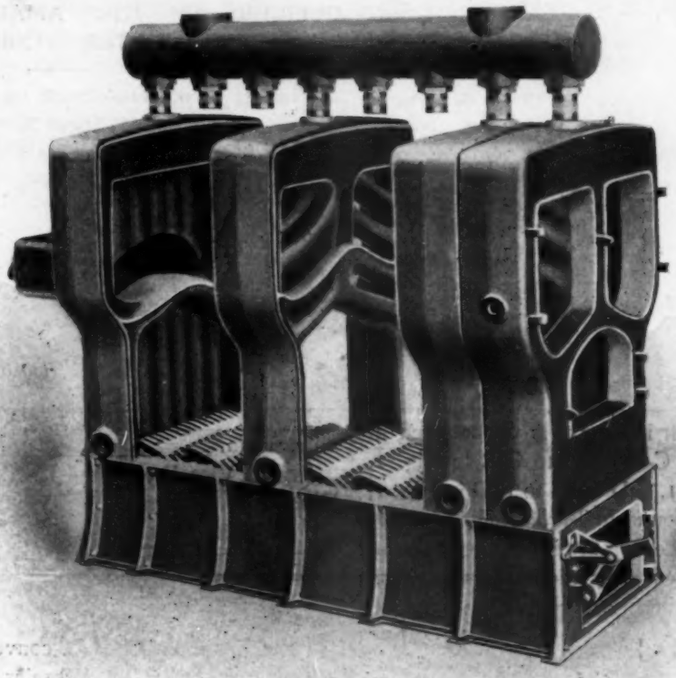
The vertical return flue drum, located in rear of the furnace, is an integral part of the furnace, heating its own fresh air supply and practically doubling the capacity of the furnace.

This vertical return flue drum imparts to the ascending air currents almost as many heat units as is done by the major part of the furnace.

One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

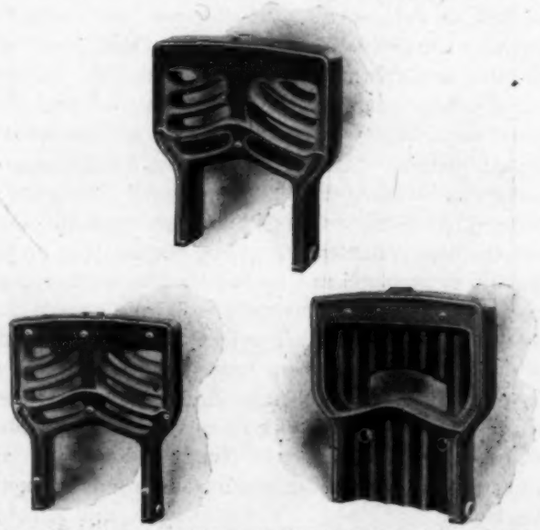
TRIUMPH HEATERS.

The Craig-Reynolds Foundry Co., Dayton, O., Zenas A. Craig, president, for whom John Kontny, 153-159 South Jefferson street, Chicago, is western agent, are manufacturers of the Triumph steam and hot water heaters and furnaces. The accompanying cuts show features of their popular boilers.



Triumph Sectional Boiler—Erecting View—400 and 500 Series.

The heaters are made of vertical cast iron sections placed one behind the other from front to rear, connected to cast iron drums by extra heavy wrought



View of Sections for Triumph Boilers—200, 300, 400 and 500 Series.

iron pipe nipples. All screw joints readily accessible and connected outside the fire. The disposition of the tubes admits the direct rays of the fire to all parts of the sections from front to rear of the boiler, and exposes the greater amount of surface to the heated gases retained in the immense combustion chamber over the fire. All parts connecting to and operating the grates, including shaker-bar, sockets and clutches, are made of the best malleable iron. The back and bridge-wall sections are both heavily corrugated and form a diving flue for the return of the products of combustion and gases as they pass out through smoke-flue at bottom of the rear section.

The gases and particles of combustion pass from the rear to the front of the boiler through the lower tier of tubes, and then to the rear through the upper tier, thus sufficiently heating every part of each section. The value and economy of the down-draft principle will be readily appreciated. The hot gases impinging upon all the surfaces add greatly to the available heating power of the boiler, and the flues are so constructed that every inch is efficient and all the effective heat of the gases is absorbed.

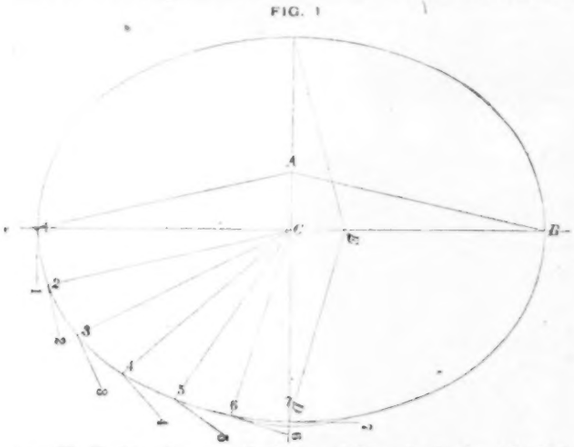
The peculiar construction of the grate is such that, while plenty of air spaces are provided for burning any kind of fuel, the spaces are closer together, so that pea or soft coal may be burned successfully. The grates of our large size heaters are shaken by two sets of levers, operating only half of the fire at a time. With this advantage the fire may be cleaned out and removed by drawing the fire from the back to the front and shaking all the dead ashes and clinkers off the back set of grates; then pushing all the fire back on the rear grates, the front set may be cleared off, thus enabling one to thoroughly clean out and renew the fire without having to let the fire go out and wasting good fuel.

Tinshop.

A PITCHED OVAL PAN COVER.

Herewith is a pattern for a pitched oval pan cover. In Fig. 1, representing the top of pan, B C indicates half of the long diameter, C D half of the short diame-

FIG. 1



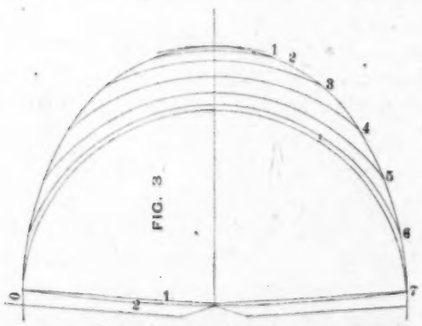
ter, E C the rise or pitch in width, A C the pitch in length. In Fig. 2 make C B equal to C B in Fig. 1, A B equal to a B in Fig. 1, C D equal to E D in Fig. 1, allowing for edges all around in Fig. 2. This is one-half of corner. Groove the two in center, turn the pan or article, after it is wired, over the cover and mark

FIG. 2

around the pin with a punch large enough to make the edge as large as desired.

Another method: In Fig. 1 lay off the oval enough larger for edges for burs. Draw center lines; space one-fourth of the elipse, in this case six spaces; draw

FIG. 3



lines to center C, laying the heel of the square at the points 1, 2, 3, etc., the blade laying along each line, the tongue at right angles to the lines, space on the right angle to lines of the pitch, as 1, 2, 3, etc. In Fig. 2 set compass C I, strike circle same as in Fig. 2, repeating the same process in C 2, C 3, C 4, etc. Setting the dividers the same as one of the spaces in Fig. 1, as from 1 to 2, with the dividers so set on Fig. 2, commence at 7, step to 6, from 6 to 5, and so on until 1 is reached. A line traced through the points will be the pattern. Groove edges to be allowed.

OFFICERS OF THE AMALGAMATED SHEET WORKERS INTERNATIONAL ALLIANCE.

The list of officers elected at the recent convention of the Amalgamated Sheet Metal Workers' International Alliance at Milwaukee was as follows:

General President—Richard Pattison, New York City.

First Vice-President—August O. Herget, St. Louis, Mo.

Second Vice-President—M. O'Sullivan, Pittsburg, Pa.

Third Vice-President—Chas. S. Penn, San Francisco, Cal.

Fourth Vice-President—John T. McTigue, Nashville, Tenn.

Fifth Vice-President—J. S. Annabel, Toronto, Canada.

Sixth Vice-President—Frank O. Mattoon, Chicago, Ill.

General Secretary-Treasurer—John E. Bray, Kansas City, Mo.

Delegates to A. F. of L. convention—J. P. Downey, Albany, N. Y.; C. D. Wheeler, Chicago, Ill.; Harry C. Kurten, Philadelphia, Pa.

MALAY TIN MINES.

In the current Journal of Geology Mr. Penrose of Philadelphia gives an account of the tin deposits of the Malay peninsula that produces over one-half of the tin used in the world and which, reckoned together with the product of the adjoining islands of Banka and Billiton, is the source of about three-quarters of the world's supply. Notwithstanding their great importance and value to the world's commerce, the mining is conducted in the most primitive fashion. The mines were largely owned by Chinese and coolies employed therein. Staniferous earth is carried out in baskets and washed in primitive sluices. The water is pumped out of the workings by human treadmill labor, and the final concentration of the ore to about 70 per cent tin is accomplished by hand. The workable deposits all occur in alluvium overlaying granite and limestone rock, which are evidently the parent rocks of the tin ore. It has been broken and washed out of the original matrix by the agencies of nature and their primitive children of nature simply continue and complete the process, although English companies are being formed to organize and introduce modern methods.

DEFINITION OF A SHEET METAL WORKER.

The Amalgamated Sheet Metal Workers' International Alliance made some careful revisions of their

constitution at their late meeting in Milwaukee. They defined a sheet metal worker as follows:

"A Sheet Metal Worker, in the sense used and considered by this International Alliance, shall be one who can command the minimum rate of wages at any of the various branches which shall consist of tin and sheet metal workers, metal roofers, cornice and skylight workers, metal furniture workers, furnace and range workers, the making, setting and finishing of metal sash and frames, jobbers, assortment workers and coppersmiths, and those who put on iron ceilings and sidings (both interior and exterior), and all sheet metal work made of No. 10 gauge and lighter."

NOTES AND QUERIES.

KITCHEN WARE FOR HOTELS AND PUBLIC INSTITUTIONS.

From Geo. F. Johnson, Redfield, S. D.

Where can I buy kitchen ware for hotels and public institutions?

Ans. Brand Stove Co., Milwaukee, Wis.; Lalance & Grosjean Mfg. Co., Michigan ave., Chicago; National Enameling & Stamping Co., Milwaukee, Wis., and the John Van Range Co., Cincinnati, Ohio.

HOOKS AND EYES.

From E. A. Griffin, Altoona, Pa.

Where can I buy hooks and eyes?

Ans.—The Arcade Mfg. Co., Freeport, Ill.; Cleveland Hardware Co., Cleveland, O., and Humanson & Beckley Mfg. Co., New Britain, Conn.

BOLTS.

From E. A. Griffin, Altoona, Pa.

Where can I buy bolts?

Ans.—Atlas Bolt & Screw Co., Cleveland, O.; Columbus Bolt Works, Columbus, O.; Illinois Iron & Bolt Co., Carpentersville, Ill.; Louisville Bolt & Iron Co., Louisvile, Ky.; New Castle Forge & Bolt Co., New Castle, Pa.; Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.; Standard Bolt Co., New York city; C. T. Fleet, Baltimore, Md.; Boston Bolt Co., Boston, Mass.; Michigan Nut & Bolt Co., Detroit, Mich.; Neeley Nut & Bolt Co., Pittsburgh, Pa.; Rockford Bolt Works, Rockford, Ill.; Upson Nut Co., Cleveland, O.; and the Shelton Co., Shelton, Conn.

HOOK AND EYE MACHINERY.

From E. A. Griffin, Altoona, Pa.

Where can I buy hook and eye machinery?

Ans.—Blake & Johnson, Waterbury, Conn.; E. J. Manville Machine Co., Waterbury, Conn.; A. H. Wilson Machine Co., Bridgeport, Conn.

ROTARY WASHING MACHINES.

From Allen Bros., Omaha, Neb.

Where can we buy rotary washing machines?

Ans.—The 1900 Washer Co., Binghamton, N. Y.; 1903 Washer Co., Altoona, Pa.; Voss Bros. Mfg. Co., Davenport, Ia.; H. F. Brammer Mfg. Co., Davenport, Ia.; Clark, Quien & Morse, Peoria, Ill.; Boss Washing Machine Co., Cincinnati, O.

CARPET SWEEPERS.

From Allen Bros., Omaha, Neb.

Where can we buy carpet sweepers?

Ans.—Goshen Sweeper Co., Grand Rapids, Mich.; Merrill Mfg. Co., Washington, D. C.; Milford Mfg. Co., Milford, O.; National Sweeper Co., Marion, Ind.; W. C. Sitterly, Auburn, N. Y.; Rogers Brush Works, Deep Water, Conn.; Thayer, Ellis & Son, Pawtucket, R. I.

WINDOW RUBBERS.

From Allen Bros., Omaha, Neb.

Where can we buy window rubbers?

Ans.—The Goodyear Rubber Co., 787 Broadway, New York; Goodyear India Rubber Glove Mfg. Co., 593 Broadway, New York; Gutta Percha Rubber Mfg. Co., 35 Warren street, New York.

WIRING FIXTURE FOR LAMP CHIMNEY.

From Peter Fels, Homestead, Ia.

Where can I buy a wire fixture to put on a lamp chimney to heat a cup?

(Can any of our readers furnish the desired information?—Ed.)

SILKOLINES.

From Wilson & Leslie, South Bend, Ind.

Where can we buy silkoline?

Ans. S. M. Schwab, Jr., & Co., 46 White, St., New York, N. Y.

MUSLINS.

From Wilson & Leslie, South Bend, Ind.

Where can we buy muslins?

Ans. Berkshire Cotton Mfg. Co., Adams, Mass.; King Phillip Mills, Fall River, Mass.; Slater Cotton Co., Pawtucket, R. I., and the Wamsutta Mills, New Bedford, Mass.

ITEMS.

Valuable tin mines have been discovered at Trescruces, Bolivia.

The Moody & Ramsay Plating Mfg. Co., Peoria, Ill., are about to erect an extensive metal-finishing plant at that point.

D. V. Lyon, D. E. Van Orden and F. W. Richardson are the incorporators of the Eastern Sheet Steel works, New York City, capitalized at $2,000.

A report from Singapore states that the government of the federative Malay states has imposed a prohibitive duty on tin ore which is not smelted in the colonies.

The Chattanooga Roofing & Foundry Co., Chattanooga, Tenn., have recently put in a nickel-plating plant and will shortly offer the trade a line of air tight heaters.

Wm. Davis, for a number of years foreman at the hot mills of the Elwood, Ind., plant of the American Tin Plate Co., has been elected superintendent for their Gas City, Ind., plant.

The Board of Classification of the United States General Appraisers on May 22 sustained a claim to the effect that phosphorous tin is entitled to free entry under the tariff act of 1897.

The American Sheet Steel Co. have established emergency hospitals in their mills at New Philadelphia, O., and Canal Dover, O. These are fitted up to give the best service in case of accident to any of the company's employes.

J. H. Jones & Son, Lock Box 33, Streator, Ill., are makers of the Illinois metallic skylights, which are made in ten styles and 500 sizes. They also manu-

facture cornices, finials, etc., and are prepared to furnish ribbed skylight glass at very lowest prices.

Daniel F. Havens, Sebastian H. Pigel, Wm. V. Drake, Wm. H. Smith and Herbert T. Carpenter are the incorporators of the Hodson-Dawson Co., Elwood, Ind., capitalized at $10,000, for the manufacture of cornices and all kinds of tin and sheet metal ware.

Powers Bros., Streator, Ill., are energetically pushing the sale of the Powers automatic chimney tops. The tops have cone bearing, adjusting brace, wire ring under lug, and they make chimneys draw, giving employment to tinners making stocks, and giving dealers a good profit.

Cooney & Geiger, 19-21 East South street, Indianapolis, Ind., are meeting marked success in their sales of the Centennial rain water cut-off. This, it is claimed, is the only single cut-off made to fit corrugated and plain pipe, and which can be used without extra pipe or elbows.

The Master Sheet Metal Workers' Association of Milwaukee have made an arrangement with the Sheet Metal Workers' Union of that city for a wage scale for the next two years. The employers will pay 30 cents an hour for the first six months; 32½ cents per hour for the next six months and 35 cents per hour commencing with May 1, 1904.

The McClure Co., Pittsburg, Pa., makers of McClure's genuine charcoal iron redipped roofing tin, send us a circular showing a roofer enthusiastically holding up a plate of this tin. This circular states that the manufacturers' enthusiasm is shared by all roofers who have used it, and that they will replace the material at their expense, should it wear out within 15 years.

The Illinois Roofing & Supply Co., 23 Lake st., Chicago, have been very successful in pushing a number of brands of roofing tin. Their "E. L." old style roofing tin has a plate of superior quality that has been tried repeatedly and is now used daily, giving universal satisfaction. It carries all of 25 pounds of coating to the box and is stamped and re-squared. This firm have the exclusive agency for this popular tin.

The officials of the American Tin Plate Co. and the Executive Committee of the Amalgamated Association of Iron, Steel and Tin Workers, who have been in conference in New York for several days past, have agreed on the wage scale for the ensuing year. The principal point of difference was the limitation of output, and the representatives of the Amalgamated Association finally conceded an increase of 10 to 15 per cent.

The American Steel Roofing Co., Middletown, Ohio, are offering the trade their patent Polygon conductor pipe, which can be furnished in either galvanized iron or copper. It is made from galvanized iron in ten-foot lengths, without a cross seam, and from copper in eight-foot lengths. This firm are also prepared to furnish regular polygon crimped elbows made to match this pipe perfectly, or else fancy stamped elbows.

The Retail Hardware & Sheet Metal Workers' Association of St. Paul, Minn., held a meeting on May 19, and the strike of the sheet metal workers was thoroughly discussed. The Masters' Association decided to resume operations, making no discrimination in respect to union or non-union men. The men make a demand for a minimum wage scale of 40 cents an hour, while the employers offer to give a minimum wage of 35 cents per hour, and for over a month it has been found impossible for them to reach an agreement.

John R. Gow, secretary of the Strong Enamel & Stamping Co., Bellaire, Ohio, advises us under cover of May 23rd, that this company, with an authorized capital of $100,000, has been incorporated under the laws of Ohio, and that they will erect a modern enameling plant. They have paid $15,000 for a site for same. Fifty thousand dollars of the capital stock of this company has been taken out by the incorporators, and Mr. Gow further advises us that unless something unforeseen occurs the plant will be built and equipped in time to cater to the fall trade. Part of the machinery has already been ordered.

Dreis, Andrews & Krump, 3214 South Halsted st., Chicago, are manufacturers of the O. K. steel brake, which is made in sizes to form ten gauge and lighter. It is claimed to have many advantages over both cast iron and wood brakes and is sold by the following leading jobbers: H. Weiss & Co., 20 Cliff st., New York, N. Y.; Janney Semple, Hill & Co., Minneapolis, Minn.; C. Sidney Shepard & Co., St. Louis, Mo.; Kansas City, Mo., etc.; Illinois Roofing & Supply Co., Chicago, Ill.; New Orleans Roofing and Metal Works, New Orleans, La.; Peden Iron & Steel Co., Houston, Texas; D. H. Allison, Denver, Colo.; Holbrook, Merrill & Stetson, San Francisco and Los Angeles, Cal.

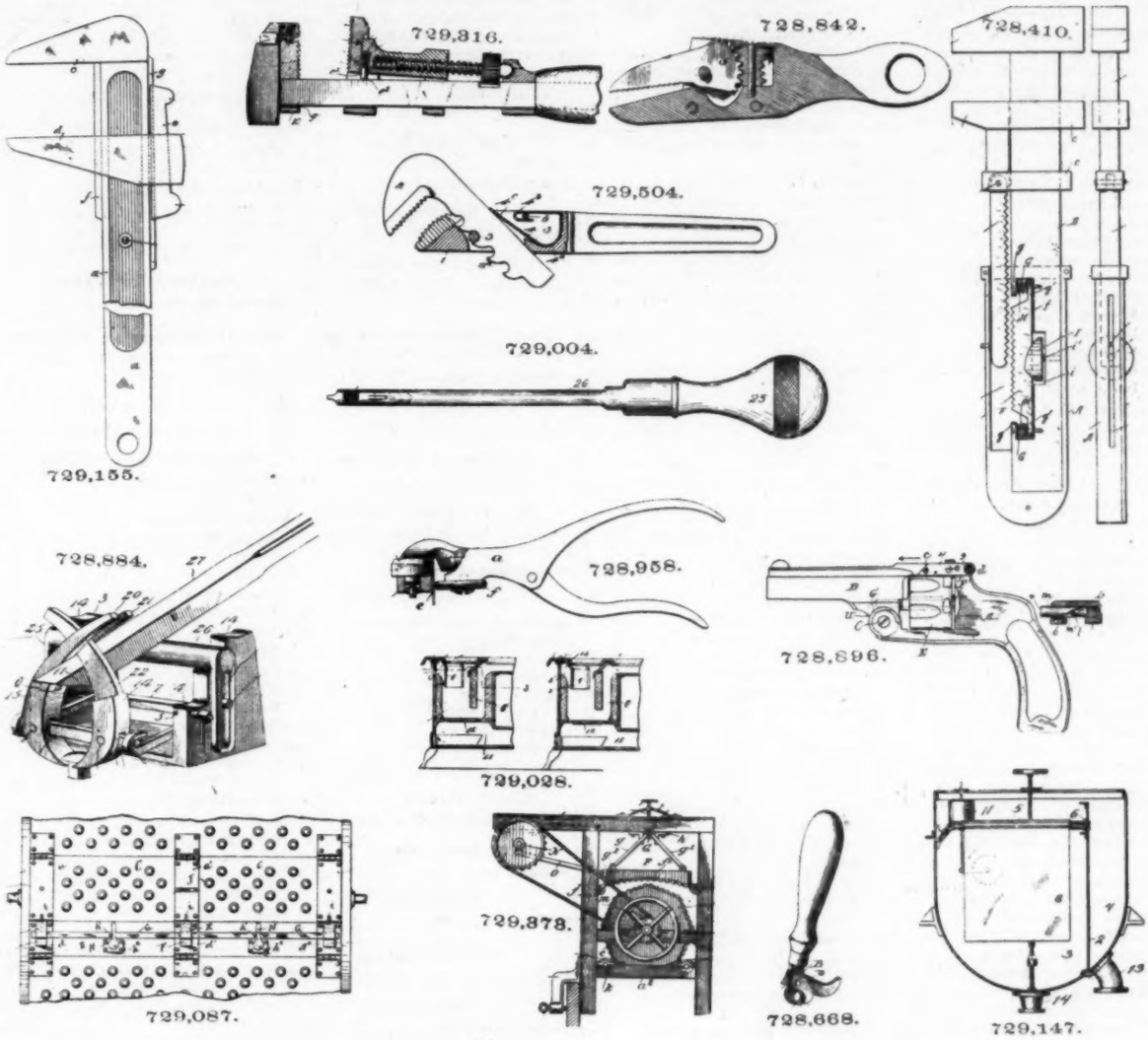
SPONTANEOUS FIRES.

Damp lampblack will ignite from the sun's rays. The same can be said of cotton waste moist with lard or other animal oil. Lampblack and a little oil or water will, under certain conditions, ignite spontaneously. Nitric acid and charcoal create spontaneous combustion. New printers' ink on paper when in contact with a hot steam pipe will ignite quickly. Boiled linseed oil and turpentine in equal parts on cotton waste will ignite in a few hours under a mild heat, and will in time create enough heat to ignite spontaneously.

Bituminous coal should not be stored where it will come in contact with wooden partitions or columns or against warm boiler settings or steam pipes. This coal should not be very deep if it is to be kept on storage for a long period. If piled in the basement of a building it should be shallow and free from moisture, and under good ventilation. That liable to absorb moisture should be burned first. If on fire a small quantity of water showered on this kind of coal cokes it upon the top and retards any great supply of water reaching the fire, thus necessitating the overhauling of the pile. Iron chips, filings or turnings should not be stored in a shop in wooden boxes. The oily waste which is not infrequently thrown among them adds to the danger of fire from this source.

The sweepings from the machine shop, if kept on hand, should never be placed over iron shavings. This mass of disintegrated iron is enough to incite heat and combustion. Iron and steel filings and turnings when mixed with oil will ignite spontaneously after becoming damp. A steam pipe against wood will cause the latter to ignite spontaneously after being carbonized, particularly if superheated steam enters the pipe, thus increasing the heat temperature.—Cassier's Magazine.

NEW PATENTS.



729,155—Sliding-Jaw Wrench. Oscar Gebauer, Berlin, Germany.

729,316—Wrench. Michael J. Fitzgerald. Salt Lake City, Utah.

728,410—Wrench. John J. Quinlan, Boston, Mass.

728,842—Wrench. Charles S. Bonney, Portsmouth, Ohio.

729,504—Wrench. George McKercher, Jackson, Mich.

729,004—Screw-Driver. Laroy S. Starrett, Athol, Mass.

728,884—Spike or Nail Puller. John H. Duncan, Oakhill, W. Va.

728,958—Saw-Set. Sarah C. Morrill, New York, N. Y.

728,896—Revolver. Andrew Fyrberg, Worcester, Mass.

729,028—Downdraft-Stove. Wiltsie F. Wolfe, New York.

729,087—Washing-Machine. Nathaniel G. Nunn, Cincinnati, Ohio.

729,373—Washing-Machine. Isaac Marks, New York, N. Y.

729,147—Filter. Godfrey Engel, Baltimore, Md.

728,668—Tack-Extractor. William H. Brown, Menominee, Mich.

HOW TO ACHIEVE FAME.

"How can I secure a niche in the Hall of Fame?"
"Invent a furnace that will burn snow."—Ex.

A PROFESSIONAL.

Von Quizz—What does your friend write? Verse? Novels? Tragedies?

H. Kashe—Great Scott, what do you take him for? An amateur? No, sir! He writes advertisements, of course!—New Orleans Times-Democrat.

TO DRILL CHILLED CAST IRON.

To drill cast iron first draw the chill. This is done by laying the piece on the forge, covering the spot to be chilled with sulphur, and working the bellows slowly until the sulphur is burned off. Then proceed with the drilling.—Popular Mechanics.

HANDS OFF.

"What have you got that sign 'Hands Off' posted outside your works for?" asked the curious individual.

"Because," returned the jocular mill owner, "my men are on strike."—Philadelphia Record.

ADVERTISERS' INDEX.

ALPHABETICAL LIST.

Aitchison, The Robert Perf'd Metal Co.... 42
American Cutlery Co.... 54
American Radiator Co.... 2
American Steel Roofing Co.... 44
American Tinplate Co.... 46
American Wooden-Ware Mfg. Co 51
Anton, George.... 42
Atkins, E. C. & Co., The.... 60
Atlas Bolt & Screw Co.... 1
Atlas Mfg. Co.... 60
Auer Register Co.... 12
Auld & Conger Co., The.... 44
Avery Stamping Co., The.... 55
Barnett, G. & H. Co.... 1
Beckwith, Estate of P. D.... 14
Berger Bros. Co.... 51
Berger Mfg. Co.... 47
Bergstrom Bros. & Co.... 8
Bertsch & Co.... 45
Biddle, J. N. & Co.... 45
Bigelow, J. E.... 57
Black Silk Stove Polish Works.. 49
Blacklock Foundry Co.... 56
Bluffton Cream Separator Co.... 51
Boss Washing Machine Co.... 53
Boynton Furnace Co.... 6
Brammer, H. F. Mfg. Co.... 53
Brand Stove Co.... 10
Brauer, A. G.... 48
Bridgeport Crucible Co.... 48
Bridgeport Gun & Implement Co. 2
Briscoe Mfg. Co.... 57
Buckeye Paint & Varnish Co.... 56
Burgess Soldering Furnace Co.... 45
Burton, The W. J. Co.... 1
Canton Steel Roofing Co.... 46
Central Mfg. Co.... 54
Chappell Fur. Co., The.... 8
Clark Novelty Co.... 51
Clark, Quien & Morse.... 53
Clayton & Lambert Mfg. Co.... 45
Columbus Bolt Works.... 1
Connors, Wm. Paint Mfg. Co.... 1
Cooney & Geiger.... 60
Cope, Geo. W. Pattern Works.... 48
Cortright Metal Roofing Co.... 44
Cutler Hardware Co.... 60
Davidson Mfg. Co.... 57
Denning Fence Works.... 55
Disston, Henry & Sons.... 54
Dixon, Jos. Crucible Co.... 42
Detroit Heating & Lighting Co.... 13
Dries; Andrews & Krump.... 45
Duplex Latch Co.... 54
Dust, Wm. T. Co.... 48
Dwight Slate Machine Co.... 45
Eller, J. H. & Co.... 46
Enterprise Mfg. Co. of Pa.... 59
Evans Stamping & Plating Co.... 49
Faultless Mfg. Co.... 7
Ferrosteel Co.... 13
Forest City Paint & Varnish Co.... 57
Forrest City Fdy. & Mfg. Co., The 7
Fox Cutlery Co.... 56
Fox Typewriter Co.... 53
Foy, The E. A. Co.... 57
Friedley & Voshardt.... 46
Front Rank Steel Fur. Co.... 8
Fulper Pottery Co.... 51
Garry Iron & Steel Roofing Co.... 43
Geneva Tool Co.... 1
Globe Ventilator Co.... 60
Gobeille Pattern Works.... 48
Helios-Upton Co.... 49
Henry & Scheible Co.... 12
Herrick, F. A. & Co.... 57
Hoehn, Fred.... 42
Hoffman, Geo. W.... 50
Home Pride Range Co.... 58
Horigan Supply Co.... 55
Howes, S. M. Co., The.... 48
Huffman, Theo. P. & Co.... 60
Hurwood Mfg. Co.... 56
Illinois Roofing & Supply Co.... 47
Iwan Bros.... 51
Joliet Stove Works.... 3
Jones, J. H.... 42
Kelly, T. P. & Co.... 48
Kewanee Boiler Co.... 2
Kimball Bros. Co.... 42
Klauer Mfg. Co.... 44
La Crosse Steel Roofing & Corrugating Co.... 49
Lalance & Grosjean Mfg. Co.... 43
Lawrence Mfg. Co.... 51
Lee-Glass-Andreesen Hdw. Co.... 59
Leonard Mfg. Co.... 57
Lufkin Rule Co.... 54
March-Brownback Stove Co.... 9
Mayer & Co.... 2
McClure & Co.... 60
Merchant & Co.... 43
Meyers, The Fred J. Mfg. Co.... 52
Meyer Furnace Co.... 10
Milwaukee Corrugating Co.... 44
Milwaukee Pattern Works.... 48
Monroe Foundry & Furnace Co.... 9
Mueller, L. J. Furnace Co.... 9-12
Nat. Enameling & Stamping Co.... 50
Nicholson File Co.... 1
Nickel Plate Stove Polish Co.... 5
Nineteen Hundred Washer Co.... 52
Nineteen Hundred and Three Washer Co.... 53
Norris & Loring Hdw. Co.... 42
North Bros. Mfg. Co.... 55
Obermayer, S. & Co.... 50
Osborn, The J. M. & L. A. Co.... 47
Osgood Scale Co.... 1
Pawling & Harnischferger.... 47
Peck-Hammond Co.... 4
Perkins, J. L. & Co.... 1
Peters Cartridge Co.... 2
Pittsburgh Stove & Range.... 4
Plume & Atwood Mfg. Co.... 50
Powers Bros.... 1
Pullman Mfg. Co.... 60
Richardson & Boynton.... 6
Robinson Fur. Co.... 10
Roesch Mfg. Co.... 53
Roney Returner Co.... 42
Sayre Stamping Co.... 48
Schwab, R. J., & Sons Co.... 13
Seither-Cherry Co.... 51
Smith, Chas. Co.... 8
Smith & Hemenway Co.... 55
Sperry, D. R. & Co.... 55
Stanley Rule & Level Co.... 56
Stanton Heater Co.... 7
Stevens Arms & Tool Co.... 60
Stevens, F. B.... 48
Stimpson, Edwin B. & Son.... 42
St. Louis Electrotyping & Foundry Co.... 47
Stowell Mfg. & Fdy. Co.... 13
Stuber & Kuck.... 50
Sun Stove Co.... 5
Sykes Steel Roofing Co.... 47
Symonds Mfg. Co.... 12
Taft, E. E. & Co.... 45
Taylor & Boggis Fdy. Co.... 56
Tower Mfg. Co.... 57
Travilla, M.... 1
Vance Boiler Co.... 2
Voss Bros. Mfg. Co.... 52
Ward, E. W. & Co.... 50
Weber Gas and Gasoline Engine Co.... 54
Weiss, H. & Co.... 56
Weller Pattern Co.... 48
Welling-Bowers Mfg. Co.... 60
Western Furnace & Foundry Co.. 10
White Lily Washer Co.... 52
Willard, Wm. G.... 5
Young Mfg. Co., The.... 44

CLASSIFIED LIST.

Agricultural Tools.
Geneva Tool Co.... 1

Architectural Sheet Metal Work.
Berger Mfg. Co.... 47
Canton Steel Roofing Co.... 46
Friedley & Voshardt.... 46

Asphalt Roofing.
Perkins, J. L. & Co.... 1

Caldrons.
Sperry, R. D. & Co.... 55

Carpenters' Tools.
Hurwood Mfg. Co.... 56
Smith & Hemenway.... 55
Stanley Rule & Level Co.... 56

Cash Registers.
Biddle, J. N. & Co.... 45

Ceilings—Steel.
Berger Mfg. Co.... 47
Canton Steel Roofing Co.... 46
Eller, J. H. & Co.... 46
Friedley & Voshardt.... 46
Garry Iron & Steel Roofing Co.... 43
Illinois Roofing & Supply Co.... 47
La Crosse Steel Roofing & Corrugating Co.... 49
Milwaukee Corrugating Co.... 44

Chimney Tops.
Iwan Bros.... 51
Powers Bros.... 1

Churns.
American Wooden-Ware Mfg. Co.. 51

Conductor Pipe.
Illinois Roofing & Supply Co.... 47
Klauer Mfg. Co.... 44

Cornice Ornaments and Statuary.
Friedley & Voshardt.... 46

Corrugated Iron.
Garry Iron & Steel Roofing Co.... 43

Cranes—Traveling.
Pawling & Harnischferger.... 47

Cream Separators.
Bluffton Cream Separator Co.... 51
Lawrence Mfg. Co.... 51
Seither-Cherry Co.... 51

Cutlery.
American Cutlery Co.... 54
Cutler Hardware Co.... 60
Fox Cutlery Co.... 56
Smith & Hemenway Co.... 55

Cut Offs.
Cooney & Geiger.... 60
Klauer Mfg. Co.... 44
Young Mfg. Co.... 44

Drills.
North Bros. Mfg. Co.... 55

Elevators.
Kimball Bros.... 42

Excelsior.
Huffman, Theo. P. & Co.... 60

Enamel Ware.
Nat'l Enameling & Stamping Co.. 50

Faucets.
Clark Novelty Co.... 51

Fencing
Denning Fence Works.... 55

Files.
Barnett, G. & H. Co.... 1
Disston, Henry & Sons.... 54
Mayer & Co.... 2
Nicholson File Co.... 1

Filters.
Fulper Pottery Co.... 51

Fire Arms.
Bridgeport Gun & Implement Co. 2
Peters Cartridge Co.... 2
Stevens, J. Arms & Tool Co.... 60

Fire Pots.
Clayton & Lambert Mfg. Co.... 45

Fixtures—Office.
Leonard Mfg. Co.... 57

Flour Sifters.
Meyers, The Fred J., Mfg. Co.... 52

Flue Stoppers.
Welling-Bowers Mfg. Co.... 60

Foundry Supplies.
Kelly, T. P. & Co.... 48
Obermayer, S. & Co.... 50

Fruit Press.
Enterprise Mfg. Co. of Pa.... 59

Furnace Cement.
Connors, Wm. Paint Mfg. Co.... 1

Furnaces—Tinners.
Clayton & Lambert Mfg. Co.... 45

Furnaces—Warm Air.
Bergstrom Bros. & Co.... 8
Boynton Furnace Co.... 6
Brand Stove Co.... 10
Chappell Fur. Co., The.... 8
Forest City Fdy. & Mfg. Co., The. 7
Front Rank Steel Fur. Co.... 8
Henry & Scheible Co.... 12
March-Brownback Stove Co.... 9
Meyer Furnace Co.... 10
Monroe Foundry & Furnace Co.... 9
Mueller, L. J. Furnace Co.... 9
Richardson & Boynton.... 6
Robinson Fur. Co.... 10
Schwab, R. J. & Sons.... 13
Smith, Chas. Co.... 8
Western Furnace & Foundry Co.. 10

Galvanized Ware.
Briscoe Mfg. Co.... 57

Gas and Gasoline Engines.
Weber Gas and Gasoline Engine Co.... 54

Gun Cleaners.
Bridgeport Gun & Implement Co. 2

Hardware Specialties.
Atkins, E. C. & Co.... 60
Atlas Mfg. Co.... 60
Atlas Bolt & Screw Co.... 1
Avery Stamping Co., The.... 55
Berger Bros. Co.... 51
Bigelow, J. E.... 57
Blacklock Foundry Co.... 56
Briscoe Mfg. Co.... 57
Central Mfg. Co.... 54
Cutler Hardware Co.... 60
Davidson Mfg. Co.... 57
Disston, Henry & Son.... 54
Duplex Latch Co.... 54
Enterprise Mfg. Co. of Pa.... 59
Fox Cutlery Co.... 56
Herrick, F. A. & Co.... 57
Hoehn, Fred.... 42
Hurwood Mfg. Co.... 56
Iwan Bros.... 51
Lalance & Grosjean Mfg. Co.... 43
Lawrence Mfg. Co.... 51
Lee-Glass-Andreesen Hdw. Co.... 59
Lufkin Rule Co.... 54
Mayer & Co.... 2
Meyers, The Fred J., Mfg. Co.... 52
Nat. Enameling & Stamping Co.... 50
Norris & Loring Hdw. Co.... 42
North Bros. Mfg. Co.... 55
Plume & Atwood Mfg. Co.... 50
Roesch Mfg. Co.... 53
Roney Returner Co.... 42
Smith & Hemenway Co.... 55
Sperry, D. R. Co.... 55
Stanley Rule & Level Co.... 56
Stuber & Kuck.... 50
Taylor & Boggis Fdy. Co.... 56
Tower Mfg. Co.... 57

Hay Carriers.
Roney Returner Co.... 42

Heaters—Hot Water and Steam.
American Radiator Co.... 2
Boynton Furnace Co.... 6
Kewanee Boiler Co.... 2
Smith, Chas. Co.... 8
Stanton Heater Co.... 7
Vance Boiler Co.... 2

Heating Devices.
Burton, The W. J. Co.... 1
Detroit Heating and Lighting Co.. 13

House Furnishing Goods
Briscoe Mfg. Co.... 57
Enterprise Mfg. Co. of Pa.... 59
Lalance & Grosjean Mfg Co.... 43
Meyers, The Fred J., Mfg. Co.... 52
Nat. Enameling & Stamping Co.. 50
Sperry, D. R. & Co.... 55
Stuber & Kuck.... 50

Knives.
Iwan Bros.... 51
Smith & Hemenway Co.... 55

Lamps—Miners.
Anton, George.... 42

Lawn Sprinklers.
Smith & Hemenway Co..... 55

Lightning Rods.
Foy, The E. A. Co..... 57

Mail Boxes.
Canton Steel Roofing Co 46
Roesch Mfg. Co..... 53

Metals—Perforated.
Aitchison, The Robert Perf'd Metal Co..... 42
Stimpson, Edwin B. & Son. 42

Oven Thermometers.
Evans Stamping & Plating Co.... 49
Helios-Upton Co. 49

Paints.
Buckeye Paint & Varnish Co..... 56
Connors, Wm. Paint Mfg. Co 1
Dixon, Jos. Crucible Co..... 42
Forest City Paint Co..... 57

Pattern Letters.
St. Louis Electrotyping & Fdy. Co. 47

Polish.
Black Silk Stove Polish Works .. 49
Hoffman, Geo. W..... 50
Nickel Plate Stove Polish Co..... 5
Stevens, F. B..... 48

Post Hole Diggers.
Iwan Bros 51

Radiators.
American Radiator Co..... 1

Registers.
Auer Register Co.... 12
Ferrosteel Co..... 13
Mueller, L. J. Furnace Co..... 12
Schwab, R. J. & Sons Co..... 13
Stowell Mfg. & Fdy. Co 13
Symonds Mfg. Co 12

Roofing.
American Steel Roofing Co..... 44
Auld & Conger..... 44
Berger Mfg. Co. 47
Clark, Quien & Morse 53
Cortright Metal Roofing Co..... 44
Eller, J. H. & Co..... 46
Klauer Mfg. Co 44
LaCrosse Steel Roofing & Corrugating Co 49
Milwaukee Corrugating Co..... 44
Osborn, The J. M. & L. A. Co..... 47
Perkins, J. L. & Co..... 1
Sykes Steel Roofing Co..... 47

Roofing Slate.
Auld & Conger..... 44

Sash Balance.
Pullman Mfg. Co..... 60

Saws.
Atkins, E. C. & Co..... 60
Disston, Henry & Sons..... 54

Saw Sets.
Disston, Henry & Sons..... 54
Smith & Hemenway Co 55

Scales.
American Cutlery Co..... 54
Osgood Scale Co..... 1

Screw Drivers.
Hurwood Mfg. Co..... 56
North Bros. Mfg. Co..... 55

Shelves.
Cutler Hardware Co..... 60

Shovels.
Avery Stamping Co., The 55

Skylights.
Jones, J. H..... 42

Skylight Gearing.
Garry Iron & Steel Roofing Co.... 43
Weiss, H. & Co..... 56

Slate Machines.
Dwight Slate Machine Co..... 45

Sporting Goods.
Stevens, J. Arms & Tool Co..... 60

Stove Bolts.
Atlas Bolt & Screw Co..... 2

Stove Lining.
Connors, Wm. Paint Mfg. Co..... 1
Bridgeport Crucible Co..... 48

Stove Patterns.
Cope, Geo. W. Pattern Works.... 48
Gobeille Pattern Works..... 48
Milwaukee Pattern Works..... 48
Weller Pattern Co..... 48

Stove Polish.
Black Silk Stove Polish Works .. 49
Dixon, Jos. Crucible Co..... 42
Nickel Plate Stove Polish Works 5

Stove Putty.
Connors, Wm. Paint Mfg. Co..... 1

Stove Repairs.
Brauer, A. G..... 48
Dust, Wm. T. Co..... 48

Stoves and Ranges.
Beckwith, Estate of P. D..... 14
Brand Stove Co..... 10
Faultless Mfg. Co 7
Home Pride Range Co..... 58
Joliet Stove Works..... 2
March-Brownback Stove Co..... 9
Peck-Hammond Co..... 4
Pittsburgh Stove & Range Co..... 4
Richardson & Boynton..... 6
Sun Stove Co.... 5
Travilla, M 1
Willard, Wm. G..... 5

Stove Trimmings.
Atlas Bolt & Screw Co..... 1
Columbus Bolt Wks..... 1
Howes, S. M. Co., The..... 48
Sayre Stamping Co..... 48
Taylor & Boggis Fdy. Co..... 16

Tacks.
Tower Mfg. Co..... 57

Tape Measures.
Lufkin Rule Co..... 54

Tinners' Tools and Supplies.
Berger Bros. Co..... 51
Bertch & Co 45
Burgess Soldering Furnace Co.... 45
Clayton & Lambert Mfg. Co..... 45
Dries: Andrews & Krump..... 45
Iwan Bros 51
Klauer Mfg. Co..... 44
Lufkin Rule Co..... 54
Perkins, J. L. & Co..... 1
Sayre Stamping Co..... 55
Smith & Hemenway Co 55
Stanley Rule & Level Co..... 56
Taft, E. E. & Co 45
Weiss H. & Co..... 56
Young Mfg. Co., The 44

Tinplate.
American Tinplate Co..... 46
Illinois Roofing & Supply Co..... 47
McClure & Co..... 60
Osborn, The J. M. & L. A. Co..... 47

Tinware.
Cooney & Geiger..... 60
Nat. Enameling & Stamping Co... 50
Stuber & Kuck..... 50

Torches.
Clayton & Lambert Mfg. Co..... 45

Tools.
Hurwood Mfg. Co..... 56

Tool Racks.
Herrick, F. A. & Co. 57

Typewriters.
Fox Typewriter Co..... 53

Ventilators.
Globe Ventilator Co..... 60
Iwan Bros 51
Merchant & Co..... 43
Powers Bros..... 1

Washing Machines.
Boss Washing Machine Co..... 53
Brammer, H. F. Mfg. Co..... 53
Clark, Quien & Morse..... 53
Nineteen Hundred Washer Co.... 52
Nineteen Hundred and Three Washer Co..... 53
Voss Bros. Mfg. Co..... 52
White Lily Washer Co..... 52

Water Supplies.
Horrigan Supply Co..... 55

Wrenches.
Hurwood Mfg. Co..... 56

IMPORTATIONS of manufacturers' materials into the United States in the fiscal year which ends with next month will be by far the largest in the history of our importations, and will amount to nearly or quite $500,000,000. Manufacturers' materials will form about 48 per cent of the imports of the fiscal year. The ten months' figures of the Treasury Bureau of Statistics, just completed, show that manufacturers' materials formed 47½ per cent of the imports for the ten months and 49.77 per cent, or practically one-half, of those of the latest available month, April; while in March they formed 49.06 per cent. Beyond doubt, the total importation of manufacturers' materials in the fiscal year 1903 will by far exceed that of any preceding year. The fiscal year 1902 was the banner year prior to the current year, its total being 415 million dollars; while the highest figure ever reached prior to 1902 was in 1900, when the total was 380 millions. A comparison of the prospective figures of nearly or quite $500,000,000 in the fiscal year about to end with those of preceding years is interesting. The total of manufacturers' materials imported in the last two months was, in round terms, 91 million dollars, and those of the ten months ending with April were $410,608,866. Should the figures of May and June equal those of March and April, it would bring the total imports of manufacturers' materials for the fiscal year above the $500,000,000 line. Comparing this with preceding years, it may be said that the total for 1902 was 415 millions; for 1900, 380 millions; 1890, 263 millions; 1880, 233 millions; 1870, 120 millions, and 1860, 93 million dollars. The share which manufacturers' materials form of the total, as already indicated, will be about 48 per cent of the total imports of the present fiscal year. In 1900 it was, in round terms, 46 per cent; in 1890, 34 per cent; in 1880, 37 per cent; in 1870, 28 per cent, and in 1860, 25 per cent.

AN engine was recently removed from the works of Messrs. Charles Clifford & Son, Ltd., Birmingham, Eng., which had been in continuous use for 136 years. The engine was started in 1767, and was put together by a man named James Pickard. The beam was made of oak, and was 28 feet long, 3 feet deep and 2 feet wide, was as hard as iron, and had been working continuously for 135 years in the city. The old beam, however, had at last got to be replaced. A hundred years ago it was thought it would not last any longer, and James Watt & Co. cast a new beam to replace it, but after lying on the ground for several years it was disposed of. The old oak beam would have been going on now but for the foundations having given way.

Trade Report.

CHICAGO IRON MARKET.

The hardest question to answer, and the one most frequently asked is, "What is the market?"

The matter might be dismissed by stating there is no market, but in reality each transaction must be settled on its own merits.

Prices made are usually according to the stock on hand of grades desired or other attractive points, such as quantity or deliveries.

Inquiries have been very frequent during the past week, but it is safe to say that not more than one-half the contemplated orders have been placed.

The waiting policy is still being carried out, but the market closes with a slightly firmer tone.

It has been discovered that some of the sales reported at very low prices are transactions between users, as considerable low-priced iron is still coming in and its place having been filled by other iron at the time the former was due; some of it is being disposed of at a profit to the first purchaser.

This class of business cannot last long or attain very large proportions.

BARS.

Demand for both iron and steel bars in the week under review has been of fairly good proportions, but it is not yet what it should be. Some consumers of steel have contracted for their requirements up to July 1, 1904, and others to Jan. 1, 1904, but the total tonnage is not large. Two orders for 1,000 tons each have also been placed with bar iron mills, but as these are from consumers whose yearly needs are exceptionally large, they cannot be taken as an evidence of increased confidence in the stability of the market. The general trade is still disposed to buy for only about 75 per cent of its requirements, covering needs for a few weeks at a time, and does not feel that the time is ripe for placing large orders. Mill men, however, seem not to be worrying over the situation, as they realize that it is but a matter of a short time before consumers will be forced into the market. Stocks among distributers and others throughout the country are low, and with excellent prospects for good crops, manufacturers see nothing in the outlook to cause alarm. Steel is being held firm at official quotations, and while iron can be purchased on the basis of 1.75c this price applies only on orders for immediate shipment. For extended deliveries, $1 to $2 per ton more is asked. We quote mill shipments, Chicago delivery, as follows: Bessemer steel, 1.76½c; angles, less than 3x3, 1.86½c base; hoops, in lots of 250 tons and greater, 2.06½c; less than this amount, 2.16½; iron, 1.75c to 1.80c. Quotations from store are as follows: Steel, 2c to 2.10c; iron, 2.10c to 2.15c; hoops, 2.40c to 2.50c; angles, 2.25c rates.

STRUCTURAL STEEL.

A few small deals that have been made pending several weeks have been closed, bringing the tonnage of new business placed with mills last week to about 1,500 tons. Specifications are plentiful, and there is a good demand from store. We quote mill prices, Chicago delivery: Beams and channels, 16 inches and under, 1.75c; 18 inches and over, 1.85c; universal plates, 1.75c; angles, 3x3 and larger, 1.75c; tees, 3x3 and larger, 1.80c; zees, 1.75c. Store trade is quoted at 2¼c per pound.

PLATES.

Western mills are well sold up and are accepting orders for only such deliveries as they can give. On this basis, contracts have been closed in the past week for about 6,000 tons of material. Several hundred tons have also been placed with Central Western mills, which are in better position to give prompt shipments. We quote mill prices, Chicago delivery, as follows: Tank steel, ¼-inch and heavier, 1.75c; flange steel, 1.85c. Prices for lots from stock, tank steel, ¼-inch and heavier, 2.15c to 2.25c; 3-16, 2.25c to 2.35c; No. 8, 2.30c to 2.40c; No. 10, 2.35c to 2.45c; flange steel, 2.40c to 2.50c.

RAILS AND TRACK SUPPLIES.

There is a very strong demand for light rails, and the local manufacturer has sold its capacity for nearly three months ahead. Orders have also been placed for a few thousand tons of heavy sections. Demand for track supplies is heavy. We quote standard sections, 500 tons and over, $28; less than 500 tons to carload lots, $30; less than carload lots, $32; second quality, $27; light rails, 45 pounds, $34 to $35; 12 pounds, $39 to $40, with regular differentials for intermediate sizes. Track supplies, mill shipments: Angle bars, 2c to 2.10c; spikes, first quality, 2.25c (out of store carload lots, 2.35c to 2.45c rates); second quality, 2.10c; track bolts, 3½x¾, with square nuts, 2.85c to 3c per 100 pounds; with hexagon nuts, 3.05c to 3.15c, with usual differentials for other sizes.

MERCHANT STEEL.

There has been little demand during the week, the tonnage of contracts placed being of small proportions. Inquiries, however, are good and specifications of good volume. We quote mill shipments, Chicago delivery, as follows: Spring steel, 2.65c to 2.75c; sleigh shoe, 1.95c flat sizes; concave and convex, 2c; out of store, 2.15c; cutter shoe, 2.50c to 2.60c; machinery steel, 2.15c to 2.25c base; plow steel, 2.50c and upwards, according to quality; toe calk, 2.30c to 2.40c; out of stock, 3c to 3.10c; ordinary tool steel, 6c to 7c; specials, 13c and upwards;

less than carload lots, 5 to 10 per cent higher; cold rolled shafting, carload lots, 47 per cent off; less than carload lots, 42 per cent off.

MERCHANT PIPE.

The demand for all sizes of pipe is excellent and mills are booking a large volume of orders.

CAST IRON PIPE.

Buying continues light, orders being mainly for small lots. We quote f. o. b. Chicago, carload lots, 4-inch water pipes, $34; 6-inch, $33; 8-inch and upwards, $32; gas pipe, $1 a ton higher. On large orders these prices can be shaded.

BILLETS AND WIRE RODS.

Manufacturers and importers of billets report a very heavy demand, but owing to the scarcity of both the domestic and foreign product orders are hard to fill. Deliveries on German material cannot be made before the last quarter of the year, owing to the heavy demand upon German mills from home customers. We quote German basic Bessemer billets, $29 to $29.50 seaboard; domestic Bessemer billets, $31; open-hearth billets for rolling mill use, $31 to $31.50; open-hearth billets for forging purposes, $36 to $40; wire rods, $40.

WIRE.

Manufacturers report that the jobbing interests throughout the agricultural districts are sending in large orders for stocks and these are keeping mills well filled. The scarcity of billets is disturbing manufacturers, and the usual summer shut-down of various plants for repairs will be a welcome relief to a rather strained situation. Prices are firm.

OLD MATERIAL.

Prices on all kinds of scrap continue their downward course and to-day are 50 cents to 75 cents lower than they were a week ago. There is little or no demand, and such sales as are made are forced. The weakness of demand for the finished product is largely responsible for the slump in scrap, although all dealers and mill men have long been of the opinion that the price of scrap was too high as compared with the price of finished product. The reported meeting of scrap dealers at Indianapolis called for May 24 for concerted action to hold up prices is ridiculed in this city. Chicago dealers took no part in it and no action is expected from them.

HARDWARE OUTLOOK.

Considering the labor troubles and drought the business continues good.

It is only natural that the labor conditions have proven quite serious with some branches of the trade, but it has not been as bad as conditions seem to warrant.

Large numbers of orders have been received for seasonable goods and so rapidly that there is difficulty in keeping up with them, particularly as many are delivered slowly by the manufacturers.

Just at present there is a splendid run on watering and sprinkling hose. The dry weather has continued so long and the earth become so parched that sprinkling is a necessity.

Shortage of hose has been brought about by this extra and unexpected demand.

GLASS.

The various disturbing elements which have influenced the window glass trade for some time seem to continue and all indications now point to a dull and dragging market until the final outcome of the jobbers' meeting, to be held in July, has been announced. In the meantime trade in the local market is dull, buyers only purchasing in such lots as are needed for immediate requirements. The local labor troubles have also unfavorably influenced the demand.

TIN.

Speculators and dealers are still interested in reducing prices of pig tin in London and spot tin declined there 10s per ton to £128 5s, while futures declined from £126 15s to £125, but closed at £126 5s, a net decline of 10s per ton. In this city the market was weak in sympathy with London, closing at 28¼@28½c asked for spot to June. Sales of 10 tons June at 28¼c was recorded at the Metal Exchange.

PLATINUM.

Market is $19.00 per oz. in New York. London prices are about on a parity with our market.

Chemical ware (crucibles and dishes) best hammered metal from store, is quoted at 72½c. per gram.

SPELTER.

The market was firm in this city at 5¾@5⅞c on spot and 5⅝@5¾c for future delivery.

ANTIMONY.

The market is dull at the following quotations: Cookson's 7¾@8c; Hallett's 7c; other brands, 6.62½c; United States, 7½c.

NICKEL.

Demand is moderate and prices are steady at 45 @60c per lb., according to size and terms of order.

ALUMINUM.

Present quotations are 33c per lb in ton lots for No. 1 ingots for remelting and 31c for No. 2 ingots; No. 1 to be over 99 per cent pure and No. 2 to be over 90 per cent pure. The latest price list of the Pittsburg Reduction Co. gives the price of aluminum sheet at 43c per lb.; discounts of 10 and 5 per cent are given for orders of 4,000 lbs. or more. Deducting this discount the net price of aluminum sheet is 35.9c per lb.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x14	$10 25
IC	14x20	7 85
IX	14x20	9 10
IXX	14x20	10 35
IXXX	14x20	11 60
IXXXX	14x20	12 85
IC	20x28	15 45
IX	20x28	17 95
IXX	20x28	20 45

COKE PLATES.

Cokes, 180 lbs	IC	20x28	9 15
Cokes, 200 lbs	IC	20x28	9 35
Cokes, 216 lbs	IC	20x28	9 65
Cokes, 216 lbs	IX	20x28	11 75

PIG IRON.

Lake Sup. Charcoal	$24 00@$25 00
Local Coke Fdy No. 1	21 50@ 22 00
Local Coke Fdy No. 2	21 50@ 21 5
Local Coke Fdy No. 3	21 50@ 22 00
Local Scotch Fdy No. 1	22 00@ 22 50
Ohio Strong Softeners, No. 1	24 00@ 24 50
Southern Silvery	23 35@ 24 35
Southern Coke No. 1	20 35@ 22 35
Southern Coke No. 2	19 85@ 21 85
Southern Coke No. 3	19 3 @ 21 35
Southern Coke No. 4	18 85@ 20 8
Southern No. 1 Soft	20 35@ 22 35
Southern No. 2 Soft	19 85@ 21 85
Alabama Car Wheel	28 35@ 29 35
Malleable Bessemer	21 50@ 22 00
Jackson Co. Silvery	29 30@ 30 30

BLACK SHEET STEEL.

No. 16	per 100 lbs.	$2 65
No. 18 24	per 100 lbs.	2 75
No. 22 24	per 100 lbs.	2 85
No. 25 26	per 100 lbs.	2 95
No. 27	per 100 lbs.	3 05
No. 28	per 100 lbs.	3 15
No. 29	per 100 lbs.	3 30

SMOOTH STEEL.

Wood's Smooth	No. 15-17	2 85
" "	No. 18	2 95
" "	No. 20	3 05
" "	No. 22-24	3 15
" "	No. 25-26	3 25
" "	No. 27	3 35
" "	No. 28	3 45

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. "A" $10 20, "B" $9 20

GALVANIZED IRON

F.O.B Chicago. 70&10%

HOOP IRON.

¾x22	¾x20	⅞x20
$3 20 100lbs.	$3 10 100lbs.	$3 00 100lbs.
1x20	1¼x19	1½x19
$2 90 100lbs.	$2 85 100lbs.	$2 75 100lbs.

PAINTED CORRUGATED IRON.

8 x 2½ feet Sheets, 28 gage, per 100 lbs. $2 50

SOLDER.

XXX Guaranteed ½&½ per lb.	20¾c
Commercial ½&½ per lb.	20¼c
No. 1 Plumbers	17¾c

SHEET ZINC.

600 lb. Casks base, per cwt.	$6.90
300 lb. Casks per cwt.	7.10
Sheets per cwt.	7.15

COPPER.

Copper base, 24c

TIN PIGS AND BARS.

Banca, pigs, per lb	35@35½c
Straits pigs, per lb	35c
Straits in bars, per lb	37c

LEAD.

American Pig	$4 60@4 62½c
Bar	6¼
National (White) brands (in less than 100 lb. lots) per lb	7½c

HARDWARE.

ADZES.

Carpenters'.
Ajax 50%
Blood's 40&5%
Hunt's 25%
White's 12½%
Coopers'.
Barton's 20%
White's 15%
Ship.
Ajax 50%
Blood's 40&5%
Hunt's 25%
White's 12½%

AMMUNITION.

Caps, Percussion — per 1,000.
F L Waterproof, 1-10s 40c
G D 35c
Eley's 52c
Cartridges.
Peters Rim Fire Ctgs 50&3%
Peters Cent Fire, Pistol & Rifle 25&3%
Peters Cent Fire, Military and Sporting Ctgs 15&8%
Peters Blank Ctgs, except 22 and 32, an additional 10% from above discount.
Peters Blank Ctgs, 22 cal $1 18
Peters Blank Ctgs, 32 cal., C. F. 4 40
Peters B B Caps, Round ball $1 44
Peters B B Caps, Conical ball $1 85
U. M. C. Rim Fire Ctgs 50&3%
U. M. C. Cent. Fire, Pistol & Rifle 25&3%
Winchester Cent. Fire, Military and Sporting Ctgs 15&8%
U. M. C. B B Caps, Round Ball $1 75..18%
U. M. C. B B Caps, Con. Ball $1 85 net
U. M. C. Rim Fire Shot Ctgs. 50&15&3%
U. M. C. Cent. " " " 25&15&3%
Primers.
Berdan Primers $1 00
Peters Primers 1 20
U. M. C. Primers 1 20
Winchester Primers 1 20
Shells.
Peters Empty Paper Shells, 10 and 12 gauge. League 25&2%
Peters Empty Paper Shells, 16 gauge. League 20&2%
Peters New Victor Nitro Shls. 20&2%
Ideal 25&7%
Peters Loaded Shells. League and Referee Semi-Smokeless 40&1%
Peters New Victor Loaded Shells with King's Smokeless 40&6%
Ideals Loaded with King's Smokeless 40&10&10&1%
U. M. C. New Club, 16 gauge 20&2%
U. M. C. New Club 25&2%
U. M. C. Nitro 20&2%
U. M. C. High Base 20&2%
Winchester Blue Rivals } 40&1%
Winchester Yellow Rivals } 40&1%
Winchester Repeater 20&2%
Winchester Leader 40&6%
U. M. C. Loaded Shells, Black Powder } 40&1% full cases
Winchester Loaded Shells, Black Powder } 40&1% full cases
U. M. C. } Smokeless 40&10&10&1% full cases
Winchester } Smokeless 40&10&10&1% full cases
Gun Wads — per 1,000.
Peters Gun Wads 18%
U. M. C. Gun Wads 18%

Powder.		Each
King's Smokeless, kegs		$11 30
" "	½ kegs	5 80
" "	¼ kegs	2 97
" "	1-lb. cans	51
" "	1-lb. " rifle	70
Dupont's "	50-lb. drum	22 45
" "	25-lb. kegs	11 30
" "	12½-lb. kegs	5 80
" "	6¼-lb. kegs	2 97
" "	1-lb. cans	51

Shot.
Dropshot, sizes smaller than B, 25-lb. bags, per bag $1 40
Drop shot, B and larger sizes, 25-lb. bags, per bag 1 65
Buck Shot, 25-lb. bags, per bag 1 65
Chilled Shot, 25-lb. bags, per bag 1 65

ANVILS.

Trenton, 70 to 80 lbs 9¾c per lb
Trenton, 81 to 150 lbs 9c per lb

AUGERS.

Boring Machine 60&10&5%
Carpenters' Nut 60&10&5%
Hollow: Ives' New Pattern 25%
Bonney's—list $30.00 65&10%
Stearn's, No. 1 doz. $4 00
Stearn's, No. 3 " 33 50
Post Hole.
Dalbey, 8-inch per doz. $ 5 75
Digwell, 8-inch " 13 00
Howe's, 6 and 8-inch " 12 50
Iwan's Improved 40 & 5%
Vaughan's, 6 to 9-inch per doz. 6 75
Rafting.
Snell's 50&5%
Shin.
Ford's, with or without screw, 40-5%
Snell's, " " " 40-5%

AWLS.

Brad, handled per doz. $0 26
shouldered, ass'd, 1 to 4 per gr. 1 10
patent, asst'd, 1 to 4 " 95
Harness, common " 1 20
patent " 95
Peg, shouldered " 1 10
patent " 40
Scratch, No. 2, handled " 4 50
No. 1, socket handled per doz. 1 15
Sewing, common per gr. 1 10
patent " 95

AXES.

Boys', Handled:
Camp Fire, 3-lb., per doz $5 75
" " 4-lb., freight rs', per doz. 6 75
Cast Steel, good grade, pr. dz., 5 50
Pioneer, per doz 6 75
Broad:
Peerless 50%
Plumb's Canada Pattern, ½ 50-10-5%
" Western " 40-10-5%
Red Warrior, per doz $18 50
Firemen's, per doz 15 50
Single Bitted (without handles)
Gladstone, per doz $7 25
Hubbard's " " 6 50
Hunt's " " 6 50
Lippincott's " " 6 50
Mann's " " 6 50
Pioneer " " 6 75
U. S. A. " " 7 75
Valley Forge " " 6 00
Second Quality " " 5 75
Double Bitted (without handles):
Lippincott's per doz $8 50
Mann's " " 8 50
Pioneer " " 9 25
U. S. A. " " 11 00
Valley Forge " " 8 25
Ship, Blood s. " " 18 50

BALANCES, SPRING.

Frary's 50%
Pelouze 20%

BAGS, PAPER NAIL.

Pounds.. 3 5 10 16 20 25
Per 1,000. $1 60 1 85 2 60 3 40 3 90 4 75

BARS, CROW.

Pinch or Wedge Point cwt. $3 40

BEAMS—SCALE.

P. S. & W. Co 40%

BEATERS.

Carpet, Rattan per doz $2 40
Raymond's Steel Wire, " " 8
Woven Wire, No. 4 " " 1 10
Egg.
Dover Pattern per doz. $0 70
Genuine Dover " 0 90
Mammoth Dover " 1 75
Lightning " 0 80
Lyon's (standard size) " 1 75
Whip, French " 1 35
Spiral " 0 40
Spoon " 0 40
Surprise per gro. 1 45

BELLOWS.

Blacksmiths' 70&5%
Hand, 8 in. per doz. $ 6 8
10 in. " 8 4
Molders', 12 in. per doz. 13 0

BELLS.

Call.
2¾ in. nickeled bell, per doz. $ 1 35
2¾ in. " brass bell " 3 60
3 in. " " " " 7 5
3 in. " silver alloy bell, per doz. 16 50
4½ in. " brass bell and base per doz. 14 50
Cow.
Ordinary Goods 70&5%
High Grade 60&10%
Jersey 70&10%
Door.
Bigelow Automatic.. per doz. $9 50
Rotary.
3 in. bronzed iron bell " 5 25
3 in. nickeled " " " 7 5
3½ in. " " " " 9 0
Hand.
Hand Bells, Polished 60@60&10%
White Metal 50%
Nickel Plated 40%
Swiss 60&5%
Silver Chime 33⅓%
Miscellaneous.
Church and School, Steel Alloy, 50 10 & 5%
Farm, lbs. 40 50 75 100
Each. $1 10 $1 30 $1 85 $2 6
Miscellaneous Cont.
Strapped Sheep per doz. $1 90
House Gong 40&5%
Sleigh, Round, Loose 40&5%

BELTING

Leather—List dated Nov. 12, 1901.
Standard 75%
Eclipse 60&10%
Extra Grade 50&10%
Rubber—
Standard 75&5%
Amherst 65&10%
Extra 60&2½%

BEVELS—TEE.

Stanley's, rosewood handle, new list 40&5%
Stanley' iron handle 40&5%

BINDING—OIL CLOTH.

Zinc 75, & 10%
Brass 75%
Brass Plated 75 & 10%

BITS.

Auger.
Extra Double Spur 70&5%
Ford's Car and Machine 40&10%
Ford Improved 40&10%
Ford's Sh p 40&10%
Irwin 30&10%
New Jenning's 5 %
Russell Jenning's 25&7½%
Clark's Expansive 50, 10&5%
Steer's " Small new list $22 00
Irwin Car 30&10%
Snell's Car 60&5%
" Ship 40&5%
" " Auger Pattern Car 40&5%
Center 40&10%
Countersink—
Wheeler's per doz. $1 60
American Snail Head " 0 70
" Rose " 0 80
" Flat " 0 70
Buck Bros'. Flat " 2 60
German " 0 70
Dowel, New Jennings 40&10%
Gimlet—
Standard Double Cut 50&5@50&10%
German Pattern per doz. $0 48
Gouge " 0 80
Spoon " 0 80
Countersink " 1 30
Reamer—
Buck Bros.' ¼ Round. " 2 75
" " Square " 2 50
Standard ¼ Round " 0 75
" Square " 0 75
German Octagon " 0 75
Screw Driver—
Round Shank " 0 48
" " extra quality " 1 40
Square Shank " 1 10

BLACKING—STOVE. (See Polish.)

BLADES—SAW.

Butchers'—
Standard ¾ & 1¼ in 60&5%
Clock Spring 60&5%
Star 20%
Hack—
Disston's 25&5%
Griffin's 35&5%
Star 20%
Wood—
Jackson's per doz. $2 25
Disston's—No. 6, 16, 26 & 045, $4 20; No. 11, $6.30.
W. M. & Co.'s No. 20 per doz. $5 50

BLOCKS.

Snatch—
Wooden 50&10%
Steel 40&10%
Tackle—
Wooden 70&5%
Steel 50, 10&5%

BOARDS.

Stove 40%
Wash—
Anchor per doz. $1 60
Globe " 2 10
Banner " 2 60
Crystal " 3 15
Brass King " 3 15
Nickel Plate " 3 15
Enamel King " 3 15

BOBS—PLUMB.

Carpenters', 8½ oz. iron pr dz. $0 65
1½ lb. " " " 1 60
2¾ lb. " " " 1 80
13 oz. lead " 3 00
6½ oz. brass " 3 30
Mason's, 3 lb. lead " 4 00

BOILERS—FARM.

Profit 30&5%
Solon 35&5%

BOLTS.

Carriage, Machine, Etc.
Carriage 60&5%
Machine 60&5%
Elevator 50-10&5%
Plow 45&5%
Stove 50-5%
Tire 72½&5%
Wagon Box Strap 70&10%
Mortise Door—
Gem 50-10&5%
Ives' 50&10%
Barrel—
Cast 50%
Wrought 50&5%
" Bronzed 75&5%
Flush, Wrought, B. K 40&5%
Spring—
Wrought 75&10%
" Brass 75&10%
Square—
Cast 40%
Wrought 60-10&10%

BORERS.

Angular, Miller's Falls, per doz $12 75
Bung, Common Ring with Handle—

Inches	1½	1¾	2
Per doz	$6 00	6 90	8 10

BORERS—CONTINUED.

Enterprise Mfg. Co., No. 1 List $1.50; No. 2, $2.00 each....35-10&5%

BOXES.

Mail, No..... 5 10 20
Per doz.....$3 65 10 80 13 00
Mitre—
New Langdon.....15&5%
Olmsted's 15%
Stanley's.....30%
Seavey's .....per doz 8 00
Twine, Nos... 20 30 25 121
Per doz $4 50

BRACES.

Common Ball.....$1 35@1 45
Barbers' Pattern .....60&10%
Fray's Gen. Spofford's.....50&10%
" No. 66 to 146.....50&10&7½%
P. S. & W. Co.'s Peck's Adjustable.....50-10&5%

BRACKETS.

Hay-Rack, Wenzelmann's No. 1, $12.60; No. 2, $13.20 per doz.
Shelf—
Cast Iron, Plain .....50&10%
Stanley's Wrought Steel.....
.....70-10&2½%
Wire.....75-10&5%

BROILERS.

Wire .....70&10%
Crown, Self-Basting, No.80..doz. $2 90

BUCKETS.

Pump Rubber—
Wychoff.....per gr. $4 75
Cooper..... " 5 50
Champion ..... " 7 50
Victor ..... " 9 50
Star..... " 5 00
IXL..... " 6 75
Well—
Galv'd Qts..... 8 10 12
Per doz $2 50 2 85 3 15
Wooden, top ear, plain, per doz 3 40
" " swivel " 4 65
" side-strap, plain " 3 50
" " swivel " 4 75

BUCKS, SAW.

Folding .....per doz $1 75

BURS, RIVETING.

Copper Burs Only.....35-10&5%
Tinners' Iron Burs Only.....70%

BUTTS.

Cast-Iron.....65&10%
Wrought Brass.....20%
Wrought Steel Bright—
Nos. 800, 804, 808, 810, 814 and 834
.....70-10-10&5%
Nos. 838, 840 and 842 ...70-10-10&5%
Nos. 822 and 823..... 75-25-10-10&5%
Wrought Steel, Japanned—
Nos. 731 and 727.....70&10&10%

CALIPERS.

Double .....40&10%
Inside and Outside.....40&10%
Wing.....40&5%

CALKS.

Logger's Boot,(Lufkin R. Co's.)
.....per M $3 65
Toe.
Shoenberger.....per lb. 5c
Bessemer ..... " 5¼c
American ..... " 7¼c
Swedes..... " 8¾c

CANS.

Cheese Factory Can Stock—
Gallons.... 15 20 30 40
Per set....$2 90 $3 15 $3 75 $4 75
Milk Cans—Gals.. 5 8 10
Elgin Pat., each, $ $2 00 $2 25
Iowa " 1 65 1 90 2 10
New Elgin" 2 10 2 25
New York " 2 10 2 35
Oil—
1 Gal. glass, Daisy....per doz. $2 35
1 " cushioned " 3 90
Star, gals..... 1 2 3
Per doz..... $1 85 $3 00 $3 90
Per doz.
Champion Faucet, 5 gallon...$ 5 65
Sterling Tilting....5 " ... 8 25
"High C" Pump...5 " ... 9 25
Eureka Pump.....5 " ... 12 25
Wood Jacket .....50-10&5%

CAPS—GUN.

See Ammunition.

CARRIERS.

Hay—
Myers' Imperial.....each $3 40
" Clover Leaf..... " 3 40

CARTRIDGES.

See Ammunition.

CASTERS.

Acme—Ball Bearing.....35%
Bed.....65&10%
Common Plate—
Brass wheel.....60&10%
Iron and porcelain wheel.....60%
Philadelphia Plate.....70%
Martin's.....40-10&5%
Payson's..... 7%
Tucker's—Wood and iron wheel..70%
" Rubber wheel.....65&10%

CATCHERS—GRASS

Lieder's No. 1.....per doz, $6 25
Eureka..... " 4 25
Ideal No. 4..... 50

CHAIN AND CHAINS.

Breast Chains—
Doubleslack.....doz. pairs $5 00
With Covert snaps " 4 75
" slide..... " 2 90
Without slide..... " 2 60
Bright Ox Chains—
5-16in. $6 75; ⅜in. $5 75 per 100 lbs.
Bright Coil Chain—
American, new list.....33⅓%
German..... ...60-10&5
Triumph, new list.....30%
Cable Coil Chain—
Inch..... 3-16 ¼ 5-16 ⅜
Per 100 lbs....$9 75 $7 25 $5 90 $4 75
Inch ..... 7-16 ½ ⅝ ¾
Per 100 lbs....$4 60 $4 50 $4 35 $4 25
Cable Log Chain—Advance 25c per 100 lbs. on Cable Coil.
Cow Tie Chains—
American 2 toggle.....40-10 & 5%
" toggle and snap, 40-10&5%
" open and closed ring.....40&5%
Halter Chains—
American, new list.....33⅓%
German.....60-10&5%
Niagara, new list.....40&5
Triumph " 30%
Jack Chain—
Brass.....60%
Iron.....60%
Picture Chains—
Light Brass, 3 ft.....per doz. 63c
Heavy " 3 " ..... " 75c
Pump Chain—Galvanized per 100 lbs..... $4 45
Safety Chain—Brass.....60&10%
Stretcher Chains—
5-16 in., $7.75—⅜ in., $7.00 per 100 lbs.
Tie-Out Chains—Browns.....70&10%
Trace Chains—Western Standard—
6½— 6-2.....per pair 28c
6½— 8-2..... " 30c
6½— 8-3..... " 29c
6½—10-2..... " 35c
7 —10-2..... " 40c
Add 3c per pair for Hooks.
" 2c " for Twist Link.
Wagon Stay Chains—
Inch ¼ 5-16 ⅜
Per 100 lbs. $6.50 $6.00 $5.25
Well Chains—
With Swivel.....per doz. 95c
Without " ..... " 80c

CHALK-CARPENTERS'.

Blue.....per gross 58c
Red..... " 48c
White..... " 38c
Common White Sch'l
Crayon..... " 5½c

D. M. Steward Mfg. Co.
Metal Workers' Crayons, gr.$2.50
Soapstone Pencils, round flat or square.....gr.$1.50
Rolling Mill Crayons.gr.$2.50
Railroad Crayons (composition) gr.$2.00
Case lots 20%

CHARCOAL.

In barrels .....per bu. 21c

CHECKS-DOOR.

Blount 30%
Blum-Jap'd, $6.25; Brzd., doz... $7.00
Columbia.....50, 10&5%

CHIMNEY TOPS.

Iwan's Volcano.....50%

CHISELS.

Box—
Inches..... 10 12 14
Round....per doz. $2.10 $2.25 $2.75
Flat.....per doz. 2.85 3.60 4.20
Cold—
Good quality.....per lb. 12@ 20c
U.S.A., extra quality..per lb. 28c
Socket, Framing and Firmer—
Barton's..... 20%
P S. & W. Co's..... 70%
For beveled back, add..per doz..... 60c
Tanged, Firmer—
P. S. & W. Co's.....35&5%
With Handles add... per doz. 60c
Choppers, Enterprise Meat—
No. 12.....$2 75
No. 22..... 4 50

CHUCKS-DRILL.

Standard Tool Co.'s 40%
Goodell's, for Goodell's Screw Drivers.....per doz. $6.25
Yankee, for Yankee Screw Drivers..... 5.00

CHURNS.

Anti-Bent Wood, Gal.. 5 7 10
Each $3.85 4.10 4.30
Belle, Barrel..... 70%
Common Dash, Gal.... 4 5 7
Per doz..... $6.75 7.50 8 00
Hero 70%
Union, Gal..... 5 7 10
Each $3.65 3.90 5.00

CLAMPS

Adjustable—Martin's 40%
Carpenters'—Steel Bar..... 50%
Carriage Makers'—P. S. & W. Co.'s.....40, 10&5%
Hose—
Sherman's, brass, ¾ in., ... per doz. 33c
Double, brass, ¾ in...per doz. 65c
Saw Filers—
Disston's list, $30 00..... 30%
Stearn's, No. 0, $3.50, No. 1, $11.50, No. 3, $5.50 doz.
Wentworth's..... 40%

CLAWS-TACK.

Cast, wood hdle...per doz., 45@ 60c
Forged steel, wood handle .....per doz. 80c
Solid Steel.....per doz. $1.60
Giant..... ....per doz. .60

Drain— CLEANERS.

Iwan's Adjustable.....50%
Iwan's Stationary..... 40%
Pot—Wire.....per doz. $0.45
Side-Walk—Steel.....per doz. 3.15
Window—
Peerless.....50, 10&5%
XLCR.....65&10%

CLEAVERS.

Butchers'—F. R. Plumb's.....35&5%
Family—Ajax, In..... 6 7 8
Per doz $5 50 5.75 6.25

CLEVISES.

alleable.....per lb. 4¼c

CLIPS.

Axle.....65&5%
Damper—
Standard .....per doz. $0.70
Troy ..... " .38
Hame..... " .30

Emery— CLOTH.

Ajax.....50&10%
B. & A.....50%
Hardware Wire—full rolls (100 ft.)
2 to 8 mesh black, per 100 sq. ft. $1.85
9 to 12 " " " " 2.15
2 to 8 " galv, " " 2.70
7 and 8 " " " " 3.25
An extra charge is made for 50 ft lengths, and a still further advance for smaller pieces.
Screen Wire—
12 mesh, painted, per 100 sq.ft. $1.20
14 " " " " 1.85

COCKS--BRASS.

Compression Bibb.....60&10&5%
" Lock.....60&10%
Lever Bibb.....60&10%
Liquor .....per doz..$8 75
Racking .....60&10%

COFFEE MILLS.

Enter. Mfg. Co., list Jan 17, '98...25%
Parker's.....50%
Arcade.....60&10%

COLLARS--STOVE PIPE.

Inches 5 6 7
Plain Tin....per gr.$2.50 $2.80 $3 75
Japanned Tin, " 3.90 4.20 5.40
Lacquered Brass" 3.30 3.60 4.80

COMBS--CURRY.

Nos. 000 20 321 330 417 416
Per doz.$0.32 .80 1.00 .95 .80 1.00
Nos. 531 533 530 535 545 390
Per doz $0.96 1.20 1.10 1.65 1.40 1.30

COMPASSES.

Carpenter's..... 70%
Pencil--Faber's.....per doz.$1.00

COOLERS--WATER.

Galvanized Lined—Lever Faucet.
Gal. 2 3 4 6 8
Each $1.35 1.65 2.00 2.35 2.95
Galvanized Lined—Telegraph Faucet
Gal. 2 3 4 6 8 10 15
Each $1.65 2.00 2.35 2.65 3.30 3.65 4.90
Porcelain Lined—
Gal. 3 4 5 6 7 8 10
Each $4.50 5.75 7.00 7.75 8.60 10.40 12.25

COPPER—SEE METALS.

COPPERS.

Soldering--1 to 2 lb.....per lb. 25@29c
3 lb. and larger..... " 23c

CORD.

Picture--White Wire--List October 1900.....80&10%
Sash--
Baltic Braided Flax...per lb. 18½c
India Hemp, cable laid " 13 c
" " hawser " " 12 c
" " plain " " 13½c
Italian " cable " " 21½c
Russian " " " " 17 c
Samson, white " 31½c
" spot " 30½c
Silver Lake, white " 24½c
" " drab " 31½c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....50%
Williamson's Forged Worm.....50%

COTTERS--SPRING.

5-16 in. and smaller..... .....80&5%
⅜-in. and larger.....75%

COUPLINGS--HOSE.

Brass .....per doz. $1.00
Brass Plated..... " 85

COVERS, WAGON--SEE TENTS.

CRADLES--GRAIN.

Morgan's Grapevine ..per doz.$21 00

CRAYONS--SEE CHALK.

CROOKS--SHEPHERDS'.

American Pattern .....per doz. $6 75
Montana " ..... " 8 00
Scotland " ..... " 8 00

CROW BARS.

Pinch or Wedge Point, per 100 lbs.....$3 40

CUTTERS.

Meat—
Enterprise Nos. 5, 10, 12, 22, 32, and 42.....25%
No. 100, list, $18.00.....40&10%
Nos. 2 and 4.....35%
Ideal.....per doz. $9.75
Universal....No. 1 2 3
Per doz.....$10.75 $13.00 $18.00
Pipe-Stanwoods No. 1 2 3
Each.....$ .85 1.50 4.00
Slaw and Crout--
3-knife Crout.....per doz. $9 25
1 " Slaw..... " 1 35
2 " " ..... " 2.00
Washer..... " 7.75

DAMPERS--STOVE PIPE.

Standard.....10&10%
American.....40&10%

DIES--STOCKS AND

Discount..... 40%

DIGGERS.

Post Hole—
Iwan's Split Handle..per doz. $8 00
Iwan's Perfection....per doz. 8.00

DIVIDERS.

Wing 70%
Extension Wing.....35&5%

DIGGERS—POST HOLE.

Atlas.....per doz. $8.50
Eagle..... " 6.25
Eureka..... " 6.50
Here les ..... " 10.25
Ryan's..... " 17.00
See also Augers—Post Hole.

DOORS--SCREEN.

⅞ in. 4 panel painted per doz. $ 6.75
⅛⅛ " " " " 7.25
in. 4 panel natural pine, fancy.....per doz.. 11.25

DOOR HANGERS—BARN.

Single Flange, D. B. Rail, ...per 100 ft. 1 60
Novelty Check Back, ...3 in 4 in 5 in 6 in
Per doz. pairs, $2.60 $3.90 $4.95 $6.25

DRILLS.

Bit Stock.....60%&65&5%
Blacksmith's Twist.....60%
Breast—
Common.....each, $2.25
Millers' Falls..... " 2.10
Hand--
Goodell's Automatic--per doz.
No. 01 No. 03 No. 3 No 20
$7.75 $12.50 $14.25 $11.00
Goodell's Single Gear per doz. $16 00
Millers' Falls " " " 12.50
" " Double " " 15.00
Reciprocating—
Goodells'.....per doz. $17 00
Bit Stock.
Standard List....60&5%@60%@10%

DRIVERS--SCREW.

Standard.....65&10%
Ajax.....70&5%
Champion..... 50%
" Pattern.....75&5%
Clark's Interchangeable.. .... 33⅓%
Reed's Lightning..... 5 %
Goodell's Spiral.....50&10&5%
Yankee Ratchet..... 50%
" " Spiral.....50&10&5%

ELBOWS.

Conductor.....60%
Adjustable Stove—In. 5 6 7
Smooth....per doz. $0.95 0.95 1.40
Plan'd..... " 2.10 2.35 3.00
Corrugated Stove—In. 5 6 7
Smooth.....per doz. $0.95 .95 1.40
Pol'd..... " 1.70 1.75 2.60
Plan'd..... " 2 60 2.85 3.50
Four-Piece Stove—In. 5 6 7
Smooth....per doz. $0 57 .80 .93
Pol'd..... " 1.00 1.05 1.50
Plan'd..... " 1.50 1.70 2.60

EMERY--TURKISH.

Size .....5 lb. pkrs. ½ kegs, kegs.
No. 60 to 150, 25 lb. 6¼c 4¾c 4½c
Flour.... " 5¼c 3¾c 3½c

ENAMEL—IRON.

English, ¼-pt. cans...per doz. $1.50
Nubian, " " ... " 1.80
O. V. B., " " ... " 1.25
Peerless 1 50

EXTRACTORS--PIG.

See Forceps, Pig.

EYES.

Bright Wire Screw—See Goods, B.W.
Drifting Pick.....60&10%
Hooks and--
Brass.....60& 5%
Iron.....65&10%

FASTENERS, STORM SASH.

Moore's.....per doz. $0 80
Schroeder's..... " 1 50
Sensible..... " 1 10

FASTENERS, BLIND.

Zimmerman's.....Net

FAUCETS.

Angle Plug.....per doz. $0 84
Brass--Andrew's .....60&10%
Petroleum.....60-10&5%
Wood--Cedar .....40&50%
Cork Lined 60%
Metal Key..... 65&5%
Measuring--Enterprise.....35&5%
See also Cocks.

FILES AND RASPS

Arcade .....75&5%
Black Diamond.....70&10%
Disston's .....75&10%
Great Western.....75&5%
Keystone Mill.....80&20%
Kearney & Foote .....75&5%
Mill, 2d quality.....80 10 &5%
New American .....75&10&5%
Nicholson's .....70&10%
Royal Mill .....80@20%
N. S. A..... 70&10&5%

FILTERS.

Improved Natural Stone.$2 50@13 50
Subject to large discounts.

FORCEPS—PIG

Barber's.....per doz., $7 25
Superior..... " 4 75
Whisson's Imp..... 6 00

FORKS

Barley—
Steel.....66⅔, 10&5%
Wood, 4 tines.$5.25 6 tines.$6.25 net
Coal.....70, 10&2½%
Coke.....70, 10&2½%
Cottonseed.....70, 10&2½%
Hay—
Diamond, 2 tine.....65, 10&5%
" 3 " .....60, 7½, 10&5%
" 4 " ..... 66⅔, 10&5%
Golden Eagle, tine 60,7½,10,10&5%
" " " ..66⅔,10,10&5%
Potato—
Digging..... .....65&10&5%
Scoop .....70&10%

FORKS—CONTINUED.

Header—
Diamond, 2 tine.....67½&10&5¢
" 3 " .....60, 20, 10&5¢
" 4 " .....66⅔&10&5¢
Golden Eagle, 4 tine.....10&10&5¢
Manure—
Diamond .....60 20, 10&5¢
Golden Eagle.....60, 20, 20&5¢
Ore.....70&10¢
Spading—
Diamond .....70, 5, 10&5¢
Golden Eagle.....70, 5, 10, 10&5¢

Hack Saw— FRAMES
Crown.....per doz., $ 8 75
Miller's Falls..... " 10 00
Star..... " 2 85

FREEZERS—ICE CREAM

Arctic—Qts... 1 2 3 4 6
Each.....$1 10 1 30 1 50 1 75 2 30
Qts..... 8 10 12 15
Each.....$2 85 3 75 4 50 5 20
White Mountain, with Crank—
Qts..... 1 2 3 4 6
Each.....$1 20 1 65 1 90 2 10 2 70
Qts..... 8 10 12 15
Each.....$3 60 4 60 5 90 7 00

GATES.

Molasses and Oil.
Perfection.....70&5¢
Stebbin's.....75&10&5¢

GAUGES.

Butt and Rabbet.
Stanley R. & L. Co.'s..20&10&2½¢
Cream Pail, Fairmont, per doz..$3 75
Marking, Mortise, etc.
.....50&10¢@50&10&5¢
Saw—Atkin's agle. 55c, dbl. 80c pr doz.
Wire.
Disston's.....25¢
P. S. & W. Co.'s.....20¢

GIMLETS.

Discount.....40@40&10¢

GLASS—WINDOW.

All sizes, single strength....90-15&5¢
" double strength...90-15&5¢

GLASSES—LEVEL.

Stanley R. & L. Co.....50&5¢

Bulk. GLUE
B Amber.....per lb 9¾c
A White.....per lb 12½c
H. S. Amber.....per lb 17 c
Liquid.
Eagle .....40 ¢
LePage's—
List "A".....37½¢
List "B".....34½¢
List "C".....25 ¢

GOODS.

Bright Wire..... 80-10&5¢

GREASE, AXLE.

Wood Boxes.
Diamond.....per gr. $5.00
Frazer's..... 9.25
Hub Lightning..... 5.25
Paragon..... 6.75
Wood Pails.
Frazer's, 15 lb. 78c, 25 lb. $1.30 each.
Hub Lightning, 15 lb. 52c, 25 lb. 68c each.
Tin Cans.
1 lb. Frazer's carriage, pr. doz. $1.30
1½ lb. " wagon.. " 1.30
3 lb. " " " 2.40
5 lb. " " " 3.50

GRIDDLES

Soapstone.....40&5¢

GRINDSTONES

Family—In..... 7 8 9
Per doz $8 25 9 50 11 00
Loose.
Per ton .....$20 00@$21 00
Mounted—
Ball Bearing..... 1 2 3
Each $3 10 2 90 2 75
Common Bearing.. 1 2 3
Each $2 85 2 65 2 50
Schofield's—
Auto.....each, $3 30
Bitreadle..... " 3 10

HAFTS—AWL

Brad—Common.....per doz., $0.15
Peg—
Common..... " 21
Patent, plain top..... " 46
" leather top .. " 52
Sewing—
Common..... " 21
Patent..... " 52

HALTERS

Jute Rope.....per doz., $0 80
Sisal Rope..... " 1 95
Web ..... " 2 10
Leather, rope tie..... " 6 25
" leather tie... " 8 25

HAMMERS—HANDLED

Blacksmiths' Hand
Maydole's .....40&10¢
Plumb's .....50&10&5¢
Engineers'—
Maydole's .....40&10¢
Plumb's Oil Finish..... 6¢
" Polished .....50&10&5¢
Farriers'.
Maydole's .....35&5¢
Plumb's .....40&5¢
Machinists'.
Maydole's ..... 40&10¢
Plumb's. .....50&10&5¢
Nail.
Ajax.....per doz $5 75
Calumet..... " 3 40
Cast..... per doz $1 10@$1 50
Maydole's .....30&7½¢
Plumb's.....40&5¢
Vulcan .....35&5¢

Riveting.
Maydole's.....35&5¢
Plumb's .....40&5¢
Shoe Plumb's.....30&5¢
Cast.....per doz 75c
Tack.
All Iron .....per doz $0 35
Pol'd Iron, Hickory hdl " 0 52
Mall. Iron, Inlaid..... " 1 50
Magnetic 1 2 3
Per doz..... 70c 80c 95c
Magazine.....per doz $4 75

HAMMERS—HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs.....70&10¢
5 lbs. and over .....75¢
Masons'—Single & Double Face..75¢
Auger. HANDLES.
Common Ass'd.....per doz $0 36
Peck's Adjustable.... " 2 10
Roger's " .... " 4 15
Ives' " ....per set 1 25
Axe.....40¢
Chisel.
Hickory, Tanged Firmer, Assorted, 24c; Large, 26c per doz.
Hickory, Socket Firmer, Assorted, 18c: Large, 21c per doz.
Applewood, Tanged Firmer. Assorted, 27c; large, 36c per doz.
Applewood Socket, Firmer, Assorted .....per doz 24c
Coal Pick .....40¢
Drifting Pick.....40¢
File, assorted 13c, large 16c per doz.
Hammer.
Adze Eye.....per doz 42c
Blacksmiths'.....per doz 45c@65c
Machinists' ..... " 39c@58c
Hatchet.....per doz 42c
Hay and Manure Fork.....40&5¢
Hoe and Rake .....40&5¢
Saw, Plain 72c, Varnished 68c per dz.
Screw Driver, Assorted 42c, Large 48c per doz.
Shovel and Spade .....40&5¢
Barn Door—HANGERS
King .....per doz. prs., 5 00
Monarch .....60&10¢
"Never Jump" Hinge.....50&10¢
Peerless, Loose Axle.... ..60&10¢
Perfection, Roller Bearing..70&5¢
Phœnix, Roller Bearing... 70&5¢
Prouty .....per doz. prs., $5 50
Rival..... " " 3 90
Superb ..... " " 6 25
Safety Flexible " " 7 50
Wagner's Adjustable.....70@10¢
Warehouse .....60¢
Conductor Pipe—
Iwan's Perfection.....50¢
Parlor Door—
Acme.....per set $3 75
Ives' Improved ..... " 2 50
Lane's Standard..... " 3 50
" New Model.... " 2 80
Prouty..... " 3 00
Lundy.....50&10¢
Eave Trough—
Baker's.....per gr., $2 60
Imperial .....10¢
Wire .....25¢

HASPS.

Hinge, Wrought.....50, 25, 10, 10&5¢
With Staples—See Staples.

HATCHETS.

Ajax .....40&10&5¢
Blood's.....40&10¢
Cast Claw.....per doz $1 50@$1 75
Cast Shingling.... " 1 20
Duffy's Barrel.....per doz 17 50
Germantown .....35&5¢
Hammond's..... .....40¢
Plumb's .....40&10&5¢
Plumb's Warehouse.....40¢
Roger's Ideal .....per doz $5 25
Underhill's Star Lath.....40¢
S. A. ..... 20&10¢

HAY RACK BRACKETS.

Wenzlemann's No. 1, per doz...$12 60
" No. 2, " ... 13 20

HINGES.

Blind.
Clark's Gravity, per doz sets....80c
Parker's..... .....65¢
Shepherd's Noiseless, for Wood casing.... .....doz. $1 05
Gate.
Clark's, 1 2 3
Hgs & Ltchs, dz.. $2 35 $2 60 $3 60
Hinges Only, " .. 1 70 1 90
Latches Only," .. 0 70 0 75
Knuckle.....per doz prs $6 00
Leed's..... " sets 6 75
Superior ..... " prs 9 25
Spring.
American.....25¢
Bommer Bros. Ball B'rng Floor 40¢
Bommer Bros. Spring Hinges .40¢
Chicago.....25&5¢
Clover Leaf.....per gro $9
Columbia Dbl. Acting....40&10&5¢
Gem .....25¢
Ideal Detachable,....per gro $12 00
New Idea ..... " 9 60
Oxford.....20¢
Wrought Iron.
Light Strap Hinges..70-25-10-10&5¢
Heavy Strap Hinges.....
.....75-10-25-10-10-5¢
Light T Hinges....66⅔-25-10-10-&5¢
Heavy T Hinges 60-5-25-10-10&5¢
Extra Heavy T Hinges.....
.....75-25-10-10&5¢
Cor. Heavy Strap..75-10-25-10-10&5¢
Cor. Ex. Heavy T....75-25-10-10&5¢
Screw Hook and Strap.
6 to 12in.....per 100 lbs. $4.00
14 to 20in ..... " " 3.75
22 to 36in ..... " 3.50

Screw Hook and Eye.
¾ to 1in .....per 100 lbs. $6.50
⅝in ..... " " 8.00
½in ..... " 10.00

HOES.

Garden.....75&10&5¢
Grub:
Ajax .....50&10&5¢
Extra.....50&10¢
Hazel.....per doz $6 25
Ladies' and Boys'.....70, 10, 5, 10&5¢
Mortar.....75, 7½, 10&5¢
Planter's Eye..... 6½&10&2½¢
Weed .....70, 10, 10&5½¢

HOOKS.

And Eyes.
Brass .....50&10&5¢
Iron..... .....65&10¢
Awning.....per gro $1 50
Belt.....75&5¢
Bench—See Stops, Bench.
Box, In. 6 8 10 12
Doz.. $1 25 $1 60 $1 70 $2 25
Humason & Beckley's...pr dz $2 40
(See Goods, Bright Wire.)
Bush.
Common Axe Handle
..... per doz $7 00@$8 50
Hamilton Pattern.....per doz $7 25
Chain—In. ¼&5-16 ⅜ 7-16 ½
Per 100 $7 50-7 75 $9 50 $11 25 $12 00
Clothes Line.
Japanned.....per doz 21c@22c
Galvanized..... " 35c
Coat and Hat.
Cast Iron.....per gro 72c@$1 00
Gem Wire.....65¢
Conductor.
Malleable.....50&10¢@50&10&5¢
Wrought.....40&10¢@50¢
Corn.
Common, unpolished, per doz. $1 30
" polished... " 1 70
"Cut Easy," .....per doz. 2 65
Clyde's, ... " 2 40
Brooke's..... " 2 65
Gate.—See Goods, Bright Wire.
Grass.
Common, Nos. 2 3 4
Per doz..... $1 70 $1 75 ——
German .....per doz $1 90
Little Giant..... " 3 10
Wood's..... ... " 1 30
Hammock.
Common..... " 21c
With Plate..... " 36c
With Screw..... " 36c
Piggot's..... " $1 05
Lambrequin or Drapery...per gro 21c
Picture .....50¢@50&10¢
Potato and Manure.....70&10&7½¢
Screw, Brass.....80&20¢
(See Goods, Bright Wire.)
Seat Spring .....per lb 6½c

HOOPS—TUB.

Ever Ready..... per case $1 65

HOSE—GARDEN.

Ply 3 4 5 6 8
Black, pr ft. 7½c 8½c 9¾c 10¾c 12½c
Cotton, 3 ply.....per ft 6¾c
Red, 3 ply ..... " 7¾c

HUSKERS.

Boss.
Nos. E A B P PX
Dz.$1 85 $2 00 $1 95 Gr.$5 90 $5 20
Nos.2000 3000 4000 O OX
Gr.$3 10 $6 75 Dz.$1 15 $2 20 $1 65
Brinkerhoff's .....per gro 14 50
Harrington..... ....per gro 4 20
Ideal—Nos. 102 101 100
Per doz..... $1 35 $2 50 $2 75
Johnson's ....per gro 7 75

IRON.

See Metals—First column.

IRONS.

Curling.
Common ....per doz 33c@48c
Princess.....per doz $0 60
Yale..... " 0 84
Oxford..... " 1 10
Ruby ..... " 1 50
Tourist, Folding ..... " 0 90
Pinking..... " 0 60
Plane.
Wood Bench.....20&5¢
Stanley R. & L. Co. (new list)25&5¢
Sad.
Charcoal.....per doz $11 25
Common, Polished, per 100 lbs 3 50
" Nickel Plated, " 4 75
Chinese Polishing.....per doz 7 60
Laundry, No. 1, $5 75; No. 2, $6 25 per doz.
Mrs. Pott's.
No. 50 J, Enterprise...per set 70c
No. 55 J, " ... " 73c
No. 50 T, " .. " 79c
No. 55 T, " ... " 76c
No. 50, Howells ..... " 77c
No. 55, " ..... " 74c
Tailors' Sad .....per lb 4¼c
" Geese..... " 4¼c
Tuyere.
Single Duck Nest.....per doz $5 25
Double " " ..... " 6 25
Sutton..... .....each 2 60

JACKS.

Locomotive .....75&5¢
Wagon.
Meeker's ....per doz $11 25
Miller's No. 2 ..... " 7
Winner..... " 7

KETTLES.

Brass.....20¢
Caldron.....50¢
Copper.....per lb 27½c
Maslin.....65&10¢
Sugar .....50&10&5¢

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade.dz $4 25
" 12-in. Straight " .dz 2 50
Cooper's Hoop ... .15¢
Corn.
Acorn.....per doz $2 65
Ajax..... " 2 25
Clipper, Light, $1 75; Heavy, $1 90 per doz.
Disston's.....per doz $3 15
Easy ..... " 7 75
Rugged Razor ..... " 2 40
H. S. Earle's ..... " 3 15
Drawing.
Standard.....70¢
Adjustable .....2½¢
Barton's Carpenters'.....10&5¢
" Folding Handle....25&5¢
Hay.
American, Sickle Edge...doz $10 25
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 25
Iwan's Sickle Edge..... 10 00
Lightn'g. Holt's Genuine " 6 50
Lightning Pattern..... " 6 25
Wadsworth's Sp'r Point. " 8 75
Hedge.
Ajax, Heavy, $5 75; Ex. Heavy, $7 75 per doz.
Mincing.
Common, Single .....per doz 48c
" Double..... " 65c
Streeter, 4 Blade, $1 30; 6 Blade, $1 90 per doz.
Putty.
Common.....per doz 84c
Goodell's.....per doz $1 30@$1 80
Russell's..... " 1 75@ 2 25

KNOBS.

Base, 2¼-in. Maple, Rubber Tip,
.... per gro $1 60
Door, Mineral.....per doz 0 80
Porcelain ..... " 0 90
Jet..... " 0 88
Picture.....60&10&5¢

LADDERS.

Common Long .....per ft 8½c@13c
Extension .....per ft 10¾c
Step.
Common..... " 6½c
" With Shelf, add 10c.
I X L.....per ft 17c
Miller's Household per ft 13c@15c

LANTERNS.

Bull's Eye Police.
3-in Flash Light.....per doz $6 00
2¾-in Regular..... " 4 00
3-in Regular..... " 5 00
Tubular, Berger .....40&10&5¢

LEADERS—CATTLE.

Nos. 1 2 3
Per doz... $0 70 $0 85 $3 75

LEATHER—LACE.

Cut ....50&10¢
Sides, Ex. Quality.....per sq ft 20c

LEATHERS—PUMP.

Valve and Plunger.....50¢

LIFTERS.

Stove Cover.
Japanned.....per gro $2 75
Coppered..... " 3 60
Chilkoot..... " 4 75
Devore's..... " 5 50
Zero ..... " 3 90
Transom, Payson's.....70&10¢

LINES.

Chalk, Twisted in 20-ft hanks.
Nos. 15 14 13 12 11
Per doz.. 10c 12c 17c 22c 29c
Twisted in 50-ft balls.
Nos. 1 2 3 4
Per doz.... 24c 30c 36c 44c
Braided in 20-ft hanks.
Nos. 0 1 2
Per doz..... ..... 23c 26c 32c
Masons', in 100-ft hanks...doz $1 00
Clothes.
60-ft Jute .....per doz $0 90
72-ft " ..... " 1 00
60-ft Sisal ..... " 1 50
72-ft " ..... " 2 00
60-ft Cotton..... " 1 25
50-ft Braided Cotton.....90¢

LINING—STOVE.

In Bricks..... per crate 42c

MACHINES.

Boring	Without Augers.	With Augers.
Ajax .....per doz	$5 25	$6 75
Angular... "	3 25	5 00
Boss ..... "	4 50	5
Upright... "	2 90	4

Leather Riveting.
Chicago, Pomeroy ....per doz $9 75
Excelsior..... " 2 50
Handy..... " 2 10
Little Giant..... " 3 10
Pony, Pomeroy..... " 8 00
Washing.
Boss. 1 2 5 3
Per doz.. $57 00 $63 00 $69 00 $60 00
Globe, No. 1.....per doz $51 00
O K Rotary ..... " 58 00
Round Wayne..... " 26 50
U. S. Steel..... " 60 00
Western Square, No. 2, $26 50; No. 3, $28 50 per doz.

MALLETS.

Carpenters'.

Fibre Head.	Small.	Med.	Large.
Per doz.....	$5 00	$5 75	$6 75

Round Hickory.....per doz $1 75
" Lignumvitæ.... " 2 75
Square Hickory..... " 1 75
" Lignumvitæ .. " 3 25
Planers'.
Applewood ..... " 1 65
Hickory..... " 0 80
Hickory Sheet Iron. "

Door. MATS.
National Rigid.....60&5%
Queen Flexible.....50%
Stove.
Standrd Quality.....per gross $2 75
Best " (Pure) " 4 75
Wire Covered Asbestos, Ex.
Heavy .....per doz 1 00

MATTOCKS.
Ajax.....5"&10%
Extra.....6&5%

MAULS.
Iron, lbs. 10 13 16 18 21
Per doz. $3 40 $4 20 $5 00 5 50 $6 00
Wood face, lbs. 10 11 12
Per doz..... $4 75 $5 00 $5 25
Wood Choppers'.
Lake Super'r & Oregon Pat.70&10%

MEASURES.
½ pk 1 pk ½ bu
Galvanized..per dz $3 75
Japanned.... " $1 50 2 25 $2 90
Iron Bound. " 1 40 1 70 2 00
Babbitt. METAL.
Alm .....per lb 8¾c
Best..... " 23c
Common, No. 4..... " 6½c
Copper Mixed..... " 18½c
Magnolia Metal..... " 19c
Tony..... " 10½c
See Metals—In first column.

MICA
First Quality.....40, 10&5%
Second Quality..... .....60%

MILLS—COFFEE.
Enterprise.....25&5%
National.....30%
Parker.....50&10%@60%

MOPS.
Erie .....per doz $3 15
Handled Cotton.
Lbs. ¾ 1 1¼ 2
Per doz.. $1 40 $2 10 $2 25 $2 95

MOWERS—LAWN.
Ball-Bearing.
In. 15 17 19 21
Each..... $7 00 $7 60 $8 25 $8 90
Champion.
In. 12 14 16 18 20
Ea.. $2 10 $2 15 $2 15 $2 20 $2 35
Champion, High Chief.
In. 16 18 20
Each..... $3 40 $3 70 $4 00
Cheap Grades.
In. 12 14 16 18
Each..... $1 90 $1 95 $1 95 $2 10
Clipper .....50&10&10%
Girard, in. 14 16
Each $2 60 $2 80
Philadelphia.
All Styles Except A & E.....70&5%
Style A.....60&5%
Style E, High Wheel.....70,10&5%
Drevels..... .. 50%
All Day.....Net Price

MUZZLES.
Horse.
Nos. 1 2 3 4 5
Doz.$0 30 $0 50 $0 55 $0 70 $1 00

NAILS.
Horse Shoe.
Ausable.....50%
Capewell 10%
Perfect.....40&5&
Putnam $3½%
Star 35%
Picture.
Brass Head.....40&10%
Judd's .....40&10%
Brads.....80&10&10%
Wire Nails—Small lots.....$2.30
Car load lots..... 2.20

NETTING—POULTRY.
Galvanized Before Weaving.80&20
" After Weaving...80&15
Cut Pieces.....65&5%

NIPPERS.
End Cutting.
P. S. & W. Co.....40&5%
Stubb's Pattern .....40&10&5%
Hoof.
Heller's.....40&5%
P. S. & W. Co.....40&10%
V. & B 40-5%

NOZZLES.
Hose.
Genuine Boston.....per doz $3 40
Genuine Gem..... " 3 60
Magic ..... " 3 60

NUTS—HOT PRESSED.
Square Blank.
In. ¼ ⅜ ½ ⅝ ¾ ⅞ 1
Lb. 7½c 5¼c 4¾c 4⅝c 4½c 4¼c 4¼c
Square Tapped.
In. ¼ ⅜ ½ ⅝ ¾
Lb. 14c 9½c 7¼c 6½c 6¼c

OILS.
Linseed, Pure boiled .....per gal 44c
" " raw..... " 43c

OILERS.
Chase Pattern.
Brass and Copper .....50&10%
Zinc.....70&5%
Engineers'.
Cannon ..... 4 &5%
Steel ..... 60&10&5%
Tin .....per doz $2 25@$2 75
Machine.
Ajax .....per doz $0 80
Copper Plated Steel... " 1 50
Malleable Iron.....40&10&5%
Tin.....per doz 55c@65c

OPENERS.
Box, in. 10 12 14
Flat ...per doz $2 85 $3 60 $4 15
Round.. " 2 10 2 25 2 "
Can.
American.....per doz $0 26
Delmonico..... " 1 50
Never Slip..... " 0 68
Perfect ..... " 1 35
Tip Top..... " 0 84
Crate, V & B..... " 5 75

OUTFITS—COBBLING.
Combination ....per doz $11 50
Economical .... " 4 90
Family..... " 10 00

PADLOCKS.
Standard Wrought.....70&10&5%
Champion 50%
Eureka..... . .....40&10&5%
Yale..... .....60&5%

PAILS.
Cream.
14-qt., Without Ga....per doz $3 00
20-qt., " " .... " 3 50
20-qt., With Gauge.... " 5 00
Sap, 10-qt., Galvanized, $1 60; 12-qt., Galvanized, $1 85 per doz.
Stock, Galvanized.
Quarts. 14 16 18 20
Per doz... $3 75 $4 00 $4 65 $5 25
Water, Galvd, qts. 10 12 14
Per doz..... $2 00 $2 30 $2 60
Wood.
Cable, 2-Hoop, $1 70; 3-Hoop, $1 90 per doz.
Cedar, 3-Hoop, $2 50 per doz.
Standard, 2-Hoop, $1 55; 3-Hoop, $1 75 per doz.

PANS.
Dripping.....50&10&5%
Fry, Common.....60&10&5%
Acme .....60½&5%
Roasting.
Brownie.....Each 30c@37c
L. & H..... " 58c@80c
Building. PAPER.
Plain.....per 100 lbs $1 15
Tarred..... " 1 25
Tarred Felt..... " 1 80
Diamond A, Red Rosin.pr roll 0 63
Leader, Red Rosin..... " 0 48
Sand and Emery.
Ajax.....50&10%
B. & A.....50 & 5%
Wrapping.
Grecian Express .....per lb 3¾c
Rag ..... " 2½c
Apple. PARERS.
Bay State .....per doz $13 00
Reading ..... " 6 75
Turntable ..... " 6 00
White Mountain..... " 5 25
Potato.
Goodsell's Saratoga..per doz. $6 50
White Mountain..... " 6 00

PICKS
Adze Eye Ore.....60&5%
Drifting and Poll Picks.....60&10%
Ajax Railroad.....50&5%
Extra Railroad.....60&10%
Surface.....60&10%

PINCHERS.
Carpenters', wrt. iron, pol. steel jaws.....30%
Blacksmiths'.....50%
P. S. & W.....40&10&5%
Clothes. PINS.
Common.....per gr..$0 12
Hoyt's..... " .. 30
U. S..... " .. 70
Picket.
Fluted.....per doz..$0 90
Round..... " .. 1 75
Spiral ..... " .. 1 90

PIPE.
Conductor. Nested Not nested
Eastern .....70&12½% 70&7½%
Central .....70&7½% 70%
Southwst'n.. 65-&7½% 65&2½%
Mo. River....70&7½% 70%
Southern .....65&10% 65&5%
Lead.
Full coils.....per lb..$0 6½
Cut " ..... " .. 6¾
Stove.
Acme—In. 5 6 7
Smooth, per jt. 10½c 10½c 12½c
Planished, " ..32c 33c 43 c
Peerless--Smooth..8½c 9c 11½c
Polished. 16c 18c 22 c
Planished 28c 31c 40 c
Made-up—In. 5 6 7
Smooth..... 8¾c 9c 12 c
7 to 6 in. Smooth Tapers, pr jt..14c
6 in. Smooth T's..... " ..30c
7 to 6 in. Planished Tapers.....45c
Wrought Iron Gas Pipe.
⅜-in., black.....discount, 60%
½ " .... " 63%
¾-in. to 4-in , black.... " 69%
4½ " 6 " .... " 66%
7 " 12 " .... " 64%
¾ " galvanized " 48%
½ " " " 50%
¾ " to 4 " " 56%
4½ " " 6 " " 52½%
7 " " 12 " " 50%

PLANES.
Ohio.....60&5%
Stanley Planes, new list..30%@30&5%
Bailey Planes 35%
Sandusky.....20%

PLANTERS.
Corn,
Monitor.....per doz..$7 75
Triumph..... " .. 6 00
Potato
Acme.....per doz.. $6 25
Challenge ..... " .. 10 75
Fencing.
Cronk's.....per doz..$9 25
Farmers' Choice..... " .. 8 75
Russell's..... " .. 8 65
Flat and Round Nose.
Bernard's.....30%
German.....50%
Lodi.....40%
Paragon.....40&10%
P. S. & W. Co.....60%
Gas--In. 8 10 12
Per doz.....$3.10 $4.00 $4.90

PLUMBS AND LEVELS.
Common.....75%@75&10%
Cook's.....40%
Davis' Iron 30%
Davis' Inclinometer.....20%
Stanley's
Nos. 00S 0S 2S 3S
Per doz..$4.50 $5.20 $7.60 $8.65
Nos. 30 25 50 35
Per doz.$13.00 $17.50 $17.50 $12.35

POINTS. Discount
Drive Well Points.....80&10&5%

POKERS--STOVE.
Wr't Iron, str't or bent, per doz.$0 50
Wr't Iron, wood hand'ls " 75
Nickel pl'td. coil hdl's.. " 70

POKES--ANIMAL.
American .....per doz.....$2 60
Brown's wr't steel " ..$5 25@5 25
Eagle..... ..... " $4 25
Success..... " 2 60

POLES--FISHING.
Bamboo.
Ft. 12 14 16 18 20
Pr 100..$2.75 $3.40 $4.75 $6.00 $7.75

POLISH.
Metal.
Pride of the Bar..... " .. 1 60
Putz Cream.
Pts. 1-6 ¼ ½
Per doz.....$0.84 $1.25 $1.80
Pts. 1 2 4 8
Per doz.$3.60 $6.00 $9.00 $18.00
White Silk, half pints, per doz.$2 00
White Silk, 6 oz. cans, per doz. 1.00
Wondershine
Pts. 1-6 ½ 1 2
Per doz...$0.68 $1.30 $2.15 $3.00
Shoe.
M. D. C.....per doz..36c@50c
F. C. O..... " 40c
T. M ..... " 50c@$1 25
Imperial.....per gr.....$5 00
Stove.
Black Eagle, 1 lb cans, pr gr..$15 00
Black Silk—
5 lb. pail 70c
Paste, 5 oz. cans per doz.....$1.00
Paste, ½ lb cans, per doz... 1.00
Liquid, ½ pint cans per doz. 1.00
Liquid, 6 oz. cans per doz.... 75c
Steel Range Gloss per doz... 1.75
Blackene, 1 lb cans....pr gr.. 13 00
Black Jack, ¾ lb cans. " .. 9 00
Dixon's Carb. of Iron. " .. 5 75
Nickel Plate..... " .. 4 50
Rising Sun ..... " .. 6 00

POPPERS, CORN.
Round or Square, 1 qt. per doz., 85@95c
Square, 1½ qt.....per doz., $1 00
Square, 2 qt.....per doz., 1.30
1 qt. reversible .....per doz., 1 60

POTS—FIRE.
Bernz.....each..$3 85
Clayton & Lambert's,each,$4 75@6 25
Gate City.....each.. 6 25
Gem ..... " .. 6 75

POWDER.
See Ammunition.

PRESSES—FRUIT AND JELLY.
Enterprise Manufacturing Co... 25%
Henis .....per doz. $2 10

PRUNERS.
Disston's Pole.....per doz..$7 50
Henry's Improved..per doz..65&10%
Water's Improved. " 70, 10&5%

PULLERS.
Cork.
Modern.....each..$2 60
Quick and Easy..... " .. 2 90
Nail.
Giant.....per doz..$9 00@10 50
Giant Pattern. " .. 6 00
Tack--Giant .... " .. 60

PULLEYS.
Awning--Jap'd.....40&5% to 35&5%
Clothes Line.....30&10%
Hay Fork.
Iron Wheel, 5 in .....per doz..$1 70
Wood Wheel, 6 in ... " .. 1 60
Wood Wheel, 6 in...
pass knot..... " .. 1 75
Hot House--Jap'd .....30&5%
Screw..... " .....30&5%
Side..... " .....30&5%
Sash.
Chicago .....per doz..$0 29
Clark's..... " .. 43
Common Sense, 2 in.. " .. 27
" Pattern, 2 in.. " .. 22
Empire..... " .. 24
Ideal..... " .. 24
Ottumwa. ball b'ring " .. 34
Grand Rapids, No. 17 " .. 24
" " No 11 " .. 25

PUMPS
Pitcher Spout.
Nos. 1 2 3 4
Each.....$0.98 $1.10 $1.20 $1.45
Spray.
Blizzard.....per doz..$14 25
Cyclone, tin..... " .. 3 90
" copper..... " .. 6 75
Daisy..... " .. 8 75
Little Giant.....each.. 2 40

PUNCHES.
Conductors', No. 22....per doz..$2 50
Machine.....per lb . 19
Saddlers'.
Common.....per doz..60c@70c
Good..... " ..72c@84c
Spring.
1 Tube .....per doz. $2 25

PLATES--TIN.
See Metals in Column 1.

PLIERS.
Button's--In. 4½ 6 8 10
Per doz.....$2.60 $3.10 $3.90 $5.20
Button's Pattern.
In. 4½ 6 8 10
Per doz.....$2.35 $2.50 $3.45 $4.40
Cutting.
Cronk's Comb.....per doz..$6 25
Bernard's.....3 %
Lodi.....40&10&5 %
Stubb's.....5 %
4 Tube, revolving.... " .. 5 25
Tinners'.
Hollow.....40%
Solid.....each..5½c

PUTTY.
In Bladders.
Strictly pure .....per 100 lbs. $2 35
Commercial ..... " " 2 10

RAIL.
Barn Door.
Light Wrought.. .....per ft. 3c
Safety .... " 5½c
Single Flange ..... " 1⅞c
Smith's Wro't Bracket—plain 3¼c
Smith's Special 4¼c
Smith's "Never Jump".....11c 50%
Smith's Plain Steel.....30%
Smith's Milled Steel 4¼c
Sliding Door.
Painted iron .....per ft. 4¼c
Bronzed wr't iron..... " 8½c

RAKES.
Coal or Road.....per doz. $5.25
Garden.
Steel, braced .....70&10&5%
Steel, bow..... 70,5,10& 5%
Malleable iron, heavy.....70@10%
Hay—Wood.....per doz. $1 05@1 70
Lawn—Wood.
Common .....per doz. $2
Automatic..... " 6 00
New Lawn Queen .... " 3 60
Jumbo, 36 teeth ..... " 5 75

RASPS—See Files.

REGISTERS.
List Sept. 1, 1901.
White Japanned .....75&10%
Nickle Plated.....75&10 %
Copper .....75&10%
Electro Plated Brass 50%

RINGS
and Ringers—Hog.
Blair's Rings .....per doz. 60c
Blair's Ringers ..... " 84c
Brown's Rings..... " 65c
Brown's Ringers..... " 90c
Champion Rings..... " $2 35
Champion Ringers..... " 1 70
Hill's Rings..... " 48c
Hill's Ringers..... "70c@ 95c
Mazor Rings ..... " 80c
Mazor Ringers ..... " $1 15
Perfect Rings ..... " 84c
Perfect Ringers..... " $1 05
Wolverine Rings..... " 1 50
Wolverine Ringers.... " 70c
Bull.
Copper, 2½-in. 3-in.
per doz..... $1 35 $1 70
Steel..... per doz. 95 1 05
Steel, Nickel Pl'td, 2½-in., doz. 1 35
Rea's Self Piercing.. .....$1.95
Fruit Jar—White .....per lb. 30c
Key.
Split, round.....per doz. 1
Split, square ..... " 32c
Ball, round..... " 32c

RIVETS.
and Burrs.
Copper Belt .....50&10&5%
Coppered Iron 75%
Tinners'.....75%
Hame.....per lb.
Slotted Clinch .....per doz. 70c@75c
Tubular—Nos. 1 and 2, assorted sizes.....per doz. 60c

ROPE.
Per lb.
Manila, 7-16 inch diameter and larger.....11½c "
Sisal, 7-16 in. and larger.. 9¼c "
Cotton.
¾ and 5-16-in. on reels...per lb. 13c
¼ and 5-16-in. in coils... " 12½

RULES.
Boxwood.....60%
Ivory .....35&5%

SASH WEIGHTS.
Per ton, f.o.b. Chicago.....$30.00

SAWS.
Back.
Disston's.....25&7½%
Jackson's .....25&7½%
Butchers'—Disston's .....35&7½%
Circular.
Disston's.....50%
Hiles' 50%
Compass.
Common .....per doz. $1 35@1 60
Disston's .....25&7½%
Cross-Cut.
Atkin's.....40%
Disston's.....40&10% &50%
Pocahontas Bit.....per ft. 39c
Pocahontas, Blued ..... " 41c
Dehorning.
Atkins'.....per doz. $5 50
Disston's..... " 5 75
Hack.
Disston's 25½%
Keystone 33¼%
Sterling Hack Saw Blades.....25%
Sterling Hack Saw Frames.....20%

SAWS—CONTINUED.

Hand and Rip.
Brown's .....30&7½¢
Disston's No. 7 .....30&7½¢
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120.....25&7½¢
Gorham's Comb.....30&7½¢
Keystone.....30&7½¢
Sam Sickles', hand...per doz. $4 25
"I Will," hand..... " 5 75
"I Will," rip..... " 6 75
"U. S. A." hand..... " 12 25
"U. S. A.' rip.. ..... " 14 25
Keyhole—Disston's .....25&7½¢
Kitchen.
Sterling.....25¢
One Man .....50¢
Panel.
Brown's .....30&7½¢
Disston's No. 7.....30&7½¢
Disston's Nos. D8 and 12, D100 and 112.....25&7½¢
"I Will" .....40¢
"U. S. A.".....40&10&5¢
Pruning.
Avery's Duplex .....25&7½¢
Brown's .....25&7½¢
Disston's.....25&7½¢
Wood.
Common.....per doz. $4 50
Handy ..... " 7 50
Happy Medium ..... " 7 00
Wood Sawyers' Delight " 8 25

SAW SETS.

Common Lever.....per doz. $ 1.20
Stillman's Lever.....per doz. 1.30
Leach's.....per doz. 5.00
Nash's.....per doz. 4.20
Monarch.....per doz. 6.50
Aikin's Pattern.....per doz. 3.50

FRAMES—SAW.

Common, plain.....per doz. $1 20
" painted..... " 1 60

Counter. SCALES.

Fairbank's Standard.....40¢
Hatch's.....per doz. $21 50
Little Detective, 1 2 6
Each $1 65 1 85 1 80
No. 1 Tea .....per doz. 7 75
Union Platform.....each 2 35
Pelouze .....25¢
Turnbull's Market.....50¢
Platform.
Common, 600 800 1000
Each $8 75 9 75 10 75
Chicago Standard.....33⅓¢&40¢
Fairbank's Standard.....40¢
Osgood.....50¢

SCOOPS.

Ames.....10&10¢
Eastern Pattern. Socket Strap.
Nos. 2 3 4 5 6
Per doz. $7.00 7.25 7.50 7.75 8.00
Nos. 7 8 9 10 12
Per doz. $8.25 8.50 8.75 9.00 9.50
Western Pattern. Socket Strap.
Nos. 1 2 3 4 5
Per doz. $7.00 7.25 7.50 7.75 8.00
Ajax *Eastern Pattern*,
Nos. 2 3 4 5
Per doz. $5.25 5.50 5.75 6.00
Nos. 6 7 8 9
Per doz. $6.25 6.50 6.75 7.00
Ajax. *Eastern Pattern*, extra heavy,
Nos. 3 5 6 7
Per doz. $7.25 7.75 8.00 8.25
Ajax. *Western Pattern*,
Nos. 4 5 6 7
Per doz. $5.75 6.00 6.25 6.50
Nos. 8 9 10 12
Per doz. $6.75 7.00 7.25 7.75

SCRAPERS.

Box.
Stanley's Adjustable, per doz. $3 60
Triangular..... " 2 10
Cabinet.
Ajax .....per doz. $2 25
Cast Steel ..... " 65c@75c
Stanley's No. 80..... " $7 75
Road.
Cubic ft. 7 5 3
Without runners, ea. $5.00 4.75 4.50
With runners.... " 5.25 5.00 4.75

SCREWS.

Bench.
Iron.....30¢
Wood, white maple..per doz..$3 60
Hand--Wood.....20¢
Hand Rail.....70&10¢
Jack.....75&5¢
Lag or Coach. Gimlet Point..70&10¢
Saw—Centennial.
Nos. 1 2 3 4
Per doz..... 22c 25c 32c 36c
Wood.
F. H. Bright Steel.....87½&10¢
R. H. Blued Steel.....85&5¢
F. H Jap'd Steel.....82½&5¢
F. H. Brass .....85&5¢
R. H. Brass .....80&5¢
R. H. Nickel Plated.....75¢

SCYTHES.

Clipper, grain.....per doz..$9 25
Dutchman, grass ..... " .. 6 00
Golden Clipper, grass. " .. 5 50
U. S. A., grass..... " .. 7 00

SETS.

Nail.
Round, common.....per doz..$0 33
Square " ..... " .. 42
Octagon " ..... " .. 33
Square, Buck Bros.. " .. 1 25
Cup Point, knurled, pr doz. 70c@90c
Rivet.
Farmers'.....per doz..$1 45
Tinners'.....50&10¢
Saw.
Aiken's Pattern.....per doz..$3 50
Common Lever..... " .. 1 20
Disston's Monarch... " .. 6 50
" X Cut..... " ..11 75
German..... " .. 1 35
Morrill's Old Style... " .. 5 00
" Pattern.... " .. 4 50
Leach's..... " .. 4 80
Nash's Hand..... " .. 4 00
" X Cut..... " .. 5 50
Stillman's Lever..... " .. 1 30
" X Cut..... " . 2 50

SHARPENERS--SKATE.

Diamond..... per doz..$1 60

SHAVES--SPOKE.

Iron.....per doz..$1 35@$2 75
Wood..... " .. 2 75@ 4 75
Bailey's .....50&5¢
Goodell's.....15¢
Stanley's Universal.....30&5¢
Pruning. SHEARS.
Buckeye, No. 1.....per doz..$6 50
" No. 2..... " .. 8 50
California Pat., 9 in.. " .. 4 25
" 10 in.. " .. 5 00
Draw Cut, No. 3..... " ..15 50
" No. 4..... " ..18 50
Henry's Pat. 0 01 14 012
Per doz...$1.90 $2.50 $3.15 $3.50
Star.....per doz..$4 75
Sheep--No. BBA.
6 in. 6½ in. 7 in.
Reg.Grip..$11.00 $11.35 $12.00 doz.
Nar.Grip.. 11.20 11.00 12.15
Tinners'--See Snips.

SHEAVES--SLIDING DOOR.

In. 3 4 5
Common..Per set...$0.42 $0.48 $0.70
Hatfield's. " .. .75 1.00 1.60

SHELLERS--CORN.

Union .....per doz..$7 25

SHOT--See Ammunition.

SHOVELS AND SPADES.

Drain.
Iwan's Perfection.....50¢
Railroad, Etc.
Gold Hibbard's.....per doz.. $9 25
C. H. Conovers's.... " .. 7 75
Beckwith's..... " .. 7 75
Hickory..... " .. 6 25
Greenleaf's ..... " .. 5 75
Columbus..... " .. 5 00
Ames' new list .....Discount 12½¢
Coal.
No. 2 Ajax.....per doz..$5 25
No. 4 Golds..... " .. 6 25
Ames' new list.....Discount 12½¢

SIEVES.

Champion.....per doz. $1.00
Hunter's Genuine..... " 1.20
" Imitation..... " 1.00
Tin Rim, 16 mesh plain wire" 1.35
Wood " 16 mesh plain wire" 1.00

SINKS.

Cast Iron.
Painted.....50¢
Enameled, White ....60&10¢
Wrought Steel.
Painted, new list.....40-10&5¢

SLEDGES--See Hammers.

SNAPS—HARNESS.

Champion.....65¢
German Pattern.....30&5¢
Judd's Pattern .....60&10¢@70¢

SNATHS.

Double Ring, Bush....per doz..$6 50
Patent Loop " .... " .. 7 00
" " Brass..... " .. 6 25

SNIPS--TINNERS'.

Hernisch's .....40&5¢
National .....40&5¢
P. S. & W. Co.'s.....25&5¢

SOLDER.

See Metals, Column 1

SPRINGS--DOOR.

Perfect. Nos. 1 2 3 4
Per doz..... 32c 38c 45c 48c
Reliance, Light $1.40, Heavy $2.20 doz.
Star..... " .90, " 1.30 "
Torrey's.....per doz..$1 35
Warner's— No. 1 No. 2
Per doz..... 72c $1 45

SQUARES

Steel and Iron .....70¢
(Add for Bluing, $2.50 per doz., net.)
Mitre--Stanley's No. 12 .....40¢
Try.
Stanley's No. 20, new list...30&10¢
" Nos. 12 and 14.....40¢
Try and Bevel--Stanley's.....40&5¢
Try and Miter.
Fox's.....per doz..$7 25
Winterbottom's .....50¢

SQUEEZERS--LEMON.

Common Wood.....per doz..$0 72
Porcelain Lined, wood. " .. 1 30
Boss, tinned iron ..... " .. 84
Pearl, nickel plated... " .. 1 30
Star " ..... " .. 1 60
Little Giant, tin'd iron " .. 4 25
King..... " .. 2 50
Drum ..... " .. 4 50

STAPLES.

Blind—Barbed .....per lb. 9½@10c
Butter Tub..... " 8@8½c
Fence, less than carload.
Polished .....per 100 lb. $2 40
Galvanized ..... " 2 80
Netting—Galvanized.....per keg 3 60
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples..... 85-10&5¢
Extra heavy .....75&10¢

STEELYARDS.

Discount 25¢

STONES.

Axe.
Hindostan .....per lb. 5½@7c
More Grit..... " 9½c
Washita ..... " 16½c
Emery.....60¢@60&5¢
Oil—Unmounted.
Arkansas Hard .....per lb. $2 00
Arkansas Soft ..... " 1 15
Hindostan ..... " 6½@6¾
Lily White..... per lb 43c
Queer Creek..... " 14½c
Ouachita..... " 36c
Washita..... " 2.c
Sythe.
Black Diamond.....per gro. $7 75
Clear Grit ..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 20
La Moille..... " 7 00
Pikes Gen. No. 1, Ind. Pond., per gro 4 75
White Mountain.....per gro. 6 50
Willoughby Lake .... " 6 25
Red End ..... " 3 15

STOPS—BENCH.

Hotchkiss'.....per doz. $3 60

STOPPERS—FLUE.

Common .....per doz. 42c
Crown..... " 48c
Gem, flat, painted..... " 73c
Gem, cor'd, decorated.... " 68c
Kirch's ..... " $1 20
Peerless ..... " 72c
Skinner's Common Sense " 95c

STRAPS.

Scoop .....per doz. prs. $1 80
Skate..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior ..... " 5 50
Malleable Iron..... " 70
Perfection ..... " 6 00
King ..... " 4 50
Wire.
N. S. Elwood's .....per doz. $5 75
O. S. Elwood s..... " 5 75
Little Giant ..... " 5 50
Star Lever..... " 6 25
Star Tackle Block.... " 9 25
Warner's ..... " 6 25

SWIVELS.

Malleable Iron .....per lb. 6½c
Wrought Steel.....per gro. $4 50

TACKS.

American Cut.....90&5¢
American Wire.....85&25&10¢
Bill Posters Cut ....90&40¢
Blued Carpet.....90&15¢
Tinned Carpet.....90&15¢
Gimp .....90&30&10¢
Upholsters' Cut .....90&40&5¢
Upholsters' Wire .....90&25¢
Double Pointed .....90&20¢
Copper .....per lb. 27c
Canvas Nails.....75&5¢
Clout Nails.....75&10&5¢
Hungarian Nails.....80&5¢

TAPES--MEASURING.

Asses' Skin .....40&10¢
Bend Leather.....25¢
Patent Leather.....25¢
Lufkin's Steel.....30¢
Lufkins Metallic .....30¢

TENTS AND PAULINS.

Wall Tents .....50&20&10¢
Wedge Tents .....50&10&5
Paulins .....50&10&5¢
Wagon Covers.....50&10&5¢

THERMOMETERS.

Tin Case.....per doz., 95c@$1 25
Wood Back..... " $1 75@ 9 00
Glass ..... " 15 50

TIES.

Bale.
Single Loop .....80&10&5¢
All other kinds.....70¢
Cow--See "Chains."

TONGS.

Crimping—Packham's...per pair 50c
Gutter—P. S. & W. Co.'s.....15&10¢
Pipe—Brown's ....50¢
Roofing—P. S. & W. Co.'s ....15&10¢

TOOLS—SAW.

Atkin's Dexter.....per doz. $4 25
Atkin's Excelsior..... " 6 25
Disston's Universal .....40¢
McDonald's .....33⅓¢
Simond's Crescent.....per doz. $10.00

TRAPS.

Game.
Hawley & Norton.....70¢
Newhouse. .....50¢
New Victor .....80¢
Mole—Reddicks .....per doz. $5 75
Mouse and Rat.
Wood Choker.....per hole 10c
Tin Choker ..... " 11c
Delusion.....per doz. 85c
Imitation Sight, Rat .. " 80c
Marty Rat..... " $6 75
Marty Rat, Imitation.. " 3 75
Marty Mouse..... " 3 15
Marty Mouse, Imitation " 2 10
E-Z-Ketch, Mouse..... " 42c
E-Z-Ketch, Rat ..... " 90c
French Automatic..... each $3 60
Fly.
Balloon.....per doz. $1 25
Harper's..... " 1 35

TROUGH--EAVE.

Eastern..... .Discount 75&16⅔¢
Central. .... " 75&12½¢
South Western.... " 75¢
Missouri River.... " 75&12½¢
Southern ..... " 75&12½¢

TROWELS.

Brick.
Standard.....30¢
Brade's.....10&7½¢
Disston's.....30¢
Rose's.....25¢
Plasterers'.
Standard .....32½¢
Disston's.....30¢
W. & McP.....25¢

TRUCKS.

Bags.....each $1 70
Handy..... " 1 50
Warehouse.....60&10¢

No. 1 2 3
Half Ironed.....$2.60 $3.40 $5.00
Full Ironed..... 3.90 5.75 6.75

TUBS-WASH.

Ex.
No. 3 2 1 large
Standard, per doz. $5.25 6.25 7.25 9.75
Dowel .... " 5.60 6.60 7.50 10.00
Cedar .... " 6.50 7.50 8.25
Indurated. " 7.20 7.95 9.45 11.70
Galvanized.
No. 1 2 3
Per doz $5.50 6.00 6.75

VISES.

Bonney's.....30¢
Cheney's .....20¢
Parker's Oval Slide.....50@50&10¢
Parker's Parallel.....15@20¢
Parker's Victor.....10¢
Parker's Combination.....5 & 10¢
Solid Box.....50&5¢
Adam's Mechanics'.....each $2 50

WARE,

Cast-Iron Hollow.
Ground ..... 40, 10&2½¢
Unground.....50, 10&2½¢
Extra Finished.....40¢
White Enameled.....40&5¢
Muslin Kettles.....65¢
Enameled.
Adamant, one coat, 70&10¢@75&10¢
The manufacturers divide this ware into two classes, which take different discounts, noted above.
Chrysolite, three coat.....40&5¢

WASHERS.

Leather. In. ⅜ 1 1⅛ 1¼ 1⅜
Nut, per C.....16c 17c 19c 25c 23c
Collar, per C...35c 40c 40c 43c
Wrought Iron.
In. ¼ 5-16 ⅜ ½ ⅝ ¾ to 1
Per lb...9c 8c 6⅞c 5½c 5c 4¾c
Wrought Steel.
In. ¼ 5-16 ⅜ ½ ⅝ ¾ to 1
Per lb .10c 9c 7⅞c 6½c 6c 5¾c

WEDGES.

Ax.....per doz....30c
Galling .....per lb..10¾c
Saw..... " .. 8¾c
Wood Choppers.
Lake Superior and Oregon, Pat .....per lb.. 9¾c
Reg. Pattern, Steel... " .. 4 c
Truckee " ..... " .. 4½c

WEIGHTS.

Hitching.....per lb..2¾c
Sash--F.O.B. Chicago..pr ton..$28.00

WHEEL BARROWS.

Common Railroad....per doz..$13 00
Heavy " .... " .. 19 50
Railroad, ball bearing " .. 19 00
Santiago Steel Tray.. " .. 26 50
No. 04 Steel Dirt ... " .. 52 00
No. 04½ " " ... " .. 56 00

WHEELS.

Corundum.....70&10&5
Emery.....75&10¢
Well. In. 8 10 12 14
Per doz.... $1.90 $2.20 $3.00 $5.50

WIRE.

Barbed. Painted. Galv'd.
Carloads...pr 100 lbs..$2.50 $2.80
Less than car " .. 2.60 2.90
Brass.
In coils..... .....20¢
In 1 lb. spools, new list.....50&10¢
Broom--Tinned.....60&10&10&10¢
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10¢ 33⅓¢
In 1 lb. spools, new list.....50&10¢
Fence--Smooth.
Nos. 6 to 9, Annealed, pr 100 lbs. $2.10
Nos. 6 to 9, Galv'd... " 2.20
Hair--New list.....50&10¢
Market.
Bright. full bdles.....70&10¢
Bright. broken bdles.....70¢
Coppered, full bdles.....70¢
Coppered, broken bdles ....65&10¢
Tinned, full bdles..... .....70&5¢
Tinned, broken bdles.....65&10¢
Picture.
In coils.....80¢@80&10¢
In 5 lb. spools .....per lb..26c
Plain—Small lots.....$2.00
Car lots..... ... 1.95
Small spools 5c per hundred higher

WRENCHES.

Acme Standard.....60¢
Alligator .....65&5¢
Always Ready.....40&10&5¢
Bemis & Call.....40¢
Coe's Standard..... .... .40&10¢
Girard's Agricultural.....75¢
P. S. & W. Co.'s Agricultural....75¢
" " Knife H'dle..50&5¢
Wescott's "S".....33⅓¢
Malleable.....per lb..6½c
Stillson Pipe.....60&5¢
Trimo " .....60¢

WRINGERS.

Clothes.
Nos. 22&110, Guarantee, pr doz. $28 00
No. 150, Sunshine ..... " 18 00
No. 130, Mendota..... " 18 00
No. 12, Success..... " 16 00
Blue Bell. Ball Bear'g. " 25 00
No. D 110, Domestic... " 22 50
No. E 300, Empress ... " 25 50
No. 122, Bicycle Ball-bearing..... " 27
No. 122, Swan..... 27

Wants and Sales.

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS HUBERT E. PECK, 623 F St., N. W., Washington, D. C. Consulting Expert in Patent Causes. U S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications." Honest work but no "Something for Nothing" offers.

For Sale—One former, $6; Wright's folder, $6; large burring, $5; large beader, $7; groover, $7; mandril, $2; fire pot, $3; bench shears, $2; one set of Burton's standing lock seamers. T. O. Halverson, Ankeny, Ia. 22

For Sale—At Lanark, Ill., a small stock of hardware and a tinshop. Will sell both or separate. A splendid chance for a tinner. Look this up. Address J. L., Lanark, Ill. 21

Want a business in the west, hardware preferred; must be clean and a good business. I have 7 per cent preferred stock that is gilt edge. Do not answer unless you can use it, the stock is first-class, of which I can satisfy you. I also have land in the wheat belt of Kansas. Address G. P. F., Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 21

Hardware and Implement stock for sale, also business and dwelling property, located in the best business locality in northwestern Ohio. Address "Business Chance," care The American Artisan, 69 Dearborn St., Chicago, Ill. 20

For Sale—Stock of hardware, furniture, undertaking and tinning, in a town of about 800, in southeast part of Colorado. Stock will invoice about $5,000; building worth $12,000. Bargain if taken soon. Address "South East," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 20

For Sale—$5,000 stock of clean hardware, stoves, tinware and farm implements. Will sell or rent building. Good school, four churches, gas lights and water works; located in one of the best parts of Illinois. Cash. No trade. Address "Best," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 20

For Sale—Stock of hardware, implements, tinware, etc., and frame store building in good farming community. Stock and fixtures inventory $1,050. Building worth $600. $1,350 cash takes the outfit. Reason for selling, wish to engage in other business. Address Box 32, Lemon Lake, Mich. 19

For Sale—Good, clean stock of hardware, stoves and sporting goods; tinshop in connection. Will invoice about $6,000. Business transactions in one year, from $17,000 to $18,000. Situated in an Iowa town of 6,000 people on the Mississippi river. Good reason given for selling. A snap for the right man. Address "Letter W," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 19

For Sale—A well established hardware business with tin shop and good set of tinners' tools. Stock invoice about $1,500; also building and lot for sale; building 24x60; lot 50x140; location, 37 miles west of Fargo on N. P. main line. A good chance for a live tinner not afraid of work. No shop nearer than 18 miles. I am in my 60th year and have suffered the loss of a limb and want to discontinue business. For further particulars address W. W. Merrill, Buffalo, N. D., Box 245. 19

For Sale—My hardware, stoves, tinware and tin shop and pump work and cornice work; up-to-date stock; invoices about $6,000 to $7,000; a good paying business in a fine location down town; a fine city in eastern part of Minnesota of 22,000 population; good reason for selling. Address "Good City," care The American Artisan, 69 Dearborn st., Chicago, Ill. 18

TINNERS' TOOLS.

For Sale—Owing to sickness must sacrifice my business, consisting of a complete set of tinner's tools, including a 4 ft. Robinson break, benches, etc., for $300. Everything is complete and nearly new. Doing good business; working two men. Best location in Denver. The layout cost $650 six months ago. Address G. R. Steetle, 2634 18th St., Denver, Colo. 21

Wanted—A second-hand pipe machine, to cut from one to four in. pipe, hand power and in good condition. Address T. J. Coslet, Columbus Grove, O. 20

Wanted—Second-hand slip roll forming machine, as No. 0000 P. S. & W. or larger. State price wanted and if in good condition. Hoernel Hdw. Co., Racine, Wis. 20

For Sale.—P. S. & W. 20 in. No. O 1 Groover, 20 in. Tin Folder, 6 in. No. 4 Beader, Candle M. and Conductor Stakes, separate, at half price. Splendid condition. C. F. Troeller, Larrabee, Ia. 20

For Sale—Bicycle repair tools in good condition. For price and number address S. B. Cole, Quincy, Mich. 19

For Sale—A "Sherman" tandem in perfect condition; cheap. T. E. Copelin, 32 No. State st., Chicago, Ill. 16

Wanted—Pipe cutting and threading machine in perfect condition for hand or power use. State size, condition, make, etc. Address Peter Haas, El Paso, Ill. 18

For Sale—Full set tinners' tools, also stock on hand. W. H. Werbe, Kokomo, Ind. 18

For Sale—Set tinners' tools, including Robinson's 8 ft. cornice brake. Herman Krebs, 62 E. Chicago Ave., Chicago, Ill. 18

Wanted—Three-inch foot brake. Address 309 Ave. "E," Cedar Rapids, Ia. 18

HELP WANTED.

Wanted—A tinner at once. State wages for inside work. Rummel Bros., Sioux Falls, S.D. 22

Wanted—Two reliable tinners and roofers, steady work. Address Jacob Schlasser, 207 Court St., Hamilton, O. 22

Wanted—At once, tinner and furnace man; steady work; wages $2.50 per day. Peter E. Nelson, Cooperstown, N. D. 22

Wanted—Three up-to-date tinners at once, must be sober and of good habit. To do inside work. Steady position to right men, no boozer need apply. H. A. Griffin, Table Grove, Ill. 23

Wanted—Hustling first-class tinner, must have at least eight years' experience and not over 35 years old; good appearance, etc. Must understand hot air furnace work; salary $60 per month, by the year, with prospects of a raise. Address Box 299, Alden, Minn. 22

Wanted—A good reliable partner in a good paying hardware store, stock will invoice $4,000.00. Stock all new and clean. This is a first-class opportunity for a good business man. Only hardware store within eight miles. In connection with this stock a general merchandise store could do a nice business. If you are looking for a business of this kind write "Opportunity," care The American Artisan, 69 Dearborn Street, Chicago, Ill. 23

Wanted—A good all around sober tinner, steady job. Address J. V. Dixon, Greenville, Ill. 21

Wanted—Two or three good sheet metal workers. State age and experience. Henry Weyand, Waterbury, Conn. 21

Wanted—A tinner at once, one that can do roofing and spouting; general job work. Charles Wolf, 306 South Main St., Mt. Vernon, Ohio. 21

Wanted—Tinner, experienced in bicycle repairing; none but capable applications considered. Country man preferred. Schultz & Moore, 904 Chicago Ave., Chicago, Ill. 21

Wanted at Once—A good all-around tinner, a young unmarried man preferred. Work year around to good steady man. State age, experience and references. Address Clutterham & Son, Auburn Park, Ill. 21

Wanted—First-class tinner, must be strictly sober and have a thorough knowledge of furnace work, and inside and outside tin work. Steady work the year round. Lieber & Campbell, Hartford City, Ind. 21

Wanted—15 experienced first-class cornice workers. Steady work at highest wages. Address P. O. Box 472, Canton, O. 20

Wanted—Hustler to travel on commission, selling individual lighting systems. This is an exceptional good opportunity; good men make $100 to $200 clear per month. Address H. F. Strehlow, State Agent, Casselton, N. D. 21

Wanted—A good tinner. Work year round. Address Chandler & Stapleton, Spirit Lake, Ia. 20

Wanted—Good tinner who can do all kinds of shop and furnace work. Employment whole year around. C. V. Mashek, Kewaunee, Wis. 20

Wanted—Good tinner and hardware man at once. Steady job the year round to a good man. Scandinavian preferred. Address J. N. Silver, Clarkfield, Mo. 20

Tinner Wanted—An industrious, sober tinner for shop and furnace work. Steady employment given to good man; one who speaks German preferred. Neely & Craven, Wayne, Neb. 20

Wanted—A tinner's helper; an exceptional chance for a tinner's helper; good wages and steady employment. Also a first-class tinner; state wages. Address Wright & Son, Orange, Texas. 20

Wanted—Two good men for stamping sheet metal ornaments; must be able to take charge of presses and casting dies. Address Gerock Bros. Mfg. Co., 1252 Manchester Ave., St. Louis, Mo. 20

Tinner Wanted—Bohemian or Norwegian preferred, one that is willing to take hold of all kinds of work connected with the trade; no boozer need apply; good wages paid if the man can earn them. Address C. L. Mickey, Jackson, Minn. 20

Wanted.—Traveling salesman for full line of moderate priced cooks and heaters. Territory, Ohio and Indiana. State experience and salary expected. Address "Ohio Manufacturer," care The American Artisan, 69 Dearborn St., Chicago, Ill. 20

Wanted—A good tinner who can do pump and furnace work. Single man preferred; competent to clerk in store if necessary. Must be temperate and not afraid of work. Permanent situation to right man. State wages expected. Address Gale, Carr & Co., Hunter, North Dakota. 20

Wanted—Good tinner that can do all kinds of tin and furnace work. Wages paid according. Chris. Eckhart, Alton, Ill. 19

Wanted—A good tinner, mostly inside job work; good wages and steady work to the right man. Townley Stove Co., Terre Haute, Ind. 19

Wanted—Two good tinners for furnace and general shop work; steady work, $2.50 per day the year round. J. R. Allen, Crookston, Minn. 19

Wanted—At once, a good, sober, industrious tinner. Can give steady employment. Write wages expected. C. S. Sheerin, Marshfield, Wis. 19

Wanted—At once, a good all-round tinner; steady work and a good job for the right man; German preferred. Address The Miller Hdw. Co., Sheboygan, Wis. 19

Wanted—A good tinner, sober, single, who can do shop and furnace work, and roofing; good wages, permanent work. Write at once to C. M. Brooks, Mowequa, Ill. 19

Wanted—Good tinner and furnace man, who has some knowledge of plumbing; good job for sober, reliable man; German preferred; state experience and wages. Address H. G. Lewis, Portage, Wis. 19

Wanted—Two good cornice makers; steady work and good wages paid. Good chance for a first-class man to take share in the business. Address "G. B.," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 19

Wanted—A young boy as clerk in small hardware store, who has had one or two years' experience in tin shop, and would like to finish trade; a good steady job for a good honest boy; state wages, and give references. Address W. F. Rehbein, Gray's Lake, Ill. 9

Wanted—At once, a good reliable tinner; steady work every day in the year and good wages. Must be sober, reliable and do inside and outside work. Write, stating wages wanted, with full particulars in first letter. J. H. Jones & Son, 414 E. Main St., Streator, Ill. 19

Tinner Wanted—An assortment workman preferred. Write, stating age, whether married or single, experience, wages asked. Board and room can be had here for $3.50 to $4.00 per week. A steady job for the right man. Moseley & Pritchard Mfg. Co., Clinton, Iowa. 19

WANTED—First-class tinner, who can do furnace and pump work; good pay and steady job. Address Lock Box 34, South Wayne, Wis. 18

Wanted for Montana—A tinner who can do cornice work. State age and full particulars. Wages $3.50 for 9 hours. Address Montana, Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 18

Wanted—At once. Two good tinners who are familiar with furnace work. Married men preferred. Must be steady and sober. To right man will give steady work year around. State wages. Martin & Kuebler, Viroqua, Wis. 18

Wanted—A tinner who can and is willing to clerk in store, who is a general all round mechanic, such as is needed in country hardware store; good wages and steady job to right man. Address, with references, and state wages wanted, I. B. Wensink, Plymouth, Wis. 18

SITUATIONS WANTED.

Situation Wanted—By an all-round tinner, in and outside; furnace and job work; Colorado preferred. Address "K. S.," 787 West Madison St., Chicago, Ill. 20

Situation Wanted—By an all-round tinner, in and outside; furnace and job work; Colorado preferred. Address "K. S.," 787 West Madison St., Hammond, Ind. 19

Situation Wanted—By experienced hardware man as clerk and bookkeeper in hardware establishment; talk English, German and Scandinavian. Steady and sober; can take charge of hardware store if desired. Minnesota or northern Iowa preferred. Address A. Boysen, Casselton, N. Dak. 19

Situation Wanted—By student in International Correspondence Schools of ten years' experience as tinner, clerk, roofer, etc. Would like employment under some good man to get the practical experience of laying out patterns; married; good habits, a hustler with A1 references. Address John Singletary, Mandan, N. D. 19

SPECIAL NOTICES.

NOTICE

TO PLUMBERS, STEAM-FITTERS AND CONTRACTORS.

Notice is hereby given by the board of commissioners of the county of Parke, Indiana, that on Thursday, June 11th, 1903, up to 12 o'clock noon at the auditor's office, Rockville, Indiana, sealed bids will be received for a steam heating plant for the court house and jail of said county and state, according to plans and specifications now on file in said auditor's office.

Bidders will be required to file bids as required by law.

The right to reject any and all bids is reserved.

The board of commissioners of the county of Parke,

J. H. KERR
JOSEPH BAIN,
JOHN ELLIOTT.

Attest: HENRY GRUBB, Auditor.

WANTED

Traveling Men Visiting the Furnace Trade,

can have the opportunity of selling an extremely well known line used by the furnace trade, and made by a house of national reputation. A fair commission allowed. 22

Apply "National" care **The American Artisan, 69 Dearborn St., Chicago, Ill.**

PERFORATED METAL
THE ROBT. AITCHISON PERFORATED METAL CO.
303-305 DEARBORN STREET, CHICAGO, ILL.

Edwin B. Stimpson & Son
31 SPRUCE ST. N.Y.
PERFORATORS OF SHEET METALS.

"CRONK'S"

"RUSSEL'S"

Exclusively Wholesale.

FENCING PLIERS
LATEST PATTERNS. LOWEST PRICE
$8.40 PER DOZEN. 70 CENTS EACH.
EITHER KIND
Yes, we are the Iowa "Good Goods" House.
Our customers like us for that and many other reasons.
NORRIS & LORING HARDWARE CO.,
CEDAR RAPIDS, IA.

FOR SALE Hardware business long established; an exceptional chance; located central N. Y. in fine mfg. city of 40,000 people. Will reduce stock to suit purchaser. Write for particulars. Ad. Hardware Company, care The American Artisan, 69 Dearborn St., Chicago, Ill.

Wanted—Salesmen
to carry our spring line of Rubber Collars as a side line. A strong, up-to-date line. Address
The Windsor Collar & Cuff Co.,
Windsor, Conn.
4t-19

FOR SALE

A sheet metal, tin roofing and heating business, located in one of the most progressive cities in the South. Owners desire to enter into other business. Best and latest improved machinery. Address "W. Y."

Care of the American Artisan, 69 Dearborn Street, Chicago, Ill. 1t-22

RONEY HAY CARRIER AND FORK RETURNER.
This Returner will return carrier and fork before the team can turn around thereby saving all hard work of pulling carrier back by a trip rope. AGENTS WANTED.
RONEY RETURNER CO., Box G, Independence, Ia.

Improved Quick and Easy Rising Steam, Electric and Hand Power ELEVATORS
Send for Circulars.
KIMBALL BROS. CO.,
1031 Ninth St., Council Bluffs, Ia.
KIMBALL ELEVATOR CO., 139 Vincent St., Cleveland, O.

FRED HOEHN
Maker of
MRS. POTTS' SAD IRON HANDLES
Clifton Park, O.
W. L. HARVEY
Agent
40 Dearborn St.
CHICAGO.

MINERS' LAMPS
For 30 years we have been manufacturing lamps, and make a Miners' Lamp that always gives satisfaction. The Globe Lamp has a globe. Our name is stamped on it. We also make a Star Miners' and Drivers' Lamp.
GEORGE ANTON,
Post Office Box 64, Monongahela, Pa.

"THE ILLINOIS"
Sold in Every State
Have Stood the Test of Years.

METALLIC SKYLIGHTS
Made in 10 Styles and 500 sizes.
"THE ILLINOIS" are the best skylights made. We also manufacture Cornices, Finials, etc. Send for handsome illustrated catalogue. Ribbed skylight glass furnished at very lowest prices.
J. H. JONES & SON, Mfrs.,
Lock Box 33. STREATOR, ILL.

CUT THIS OUT

To the Publishers
The American Artisan and Hardware Record
69 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

NAME .....
ADDRESS .....
TOWN .....
STATE .....

BURT HOSTERMAN,
Marshfield, Wis., writes:
"I do not think any hardware man has any business to start a hardware store without your paper."

DIXON'S Silicia Graphite Paint, for tin or shingle roofs and iron work. It is absolutely without an equal. Tin roofs well painted have not required repainting for ten to fifteen years. If you need any paint it will pay you to send for circular.
JOSEPH DIXON CRUCIBLE CO., JERSEY CITY, N. J.

EVIDENCE OF SUPERIORITY

The
John Scott Legacy Premium
and Medal

ISSUED BY THE

FRANKLIN INSTITUTE

HAS BEEN AWARDED TO THE

"STAR" VENTILATOR

A Valuable and Unique Prize for Superior Merit

PHILADELPHIA—NEW YORK

MERCHANT & CO., NC., Sole Manufacturers.

CHICAGO—BROOKLYN

A full assortment of these goods for sale by all the

(burned in the enamel) ARE SAFE

We claim Purity and Safety, and Substantiate this claim with Chemists' Certificates.

(Reduced fac-simile of label).

Look for this Label (Sustained by U.S. Circuit Court.) Printed on BLUE PAPER and pasted on every Kitchen Utensil made in Genuine AGATE NICKEL-STEEL WARE as a guarantee of Absolute PURITY and SAFETY

NAME OF UTENSIL.

AGATE L G MFG & CO. NICKEL-STEEL-WARE

NO.

Patented Feb. 12, 1895.

COST	SELL

Analysis No. 72,339. New York, Dec. 7, 1896.
We have made a careful examination of a sample of "Agate Nickel Steel Ware" received from The Lalance & Grosjean Mfg. Co., Nov. 30, 1896.
The enamel coating is homogeneous, of extra thickness, and great purity.
It is *entirely free from arsenic, lead and antimony*—metals so often found in enameled goods.
Very respectfully,
STILLWELL & GLADDING,
Chemists to the New York Produce Exchange.

{ Pierre de P. Ricketts, E.M., Ph.D.
{ John H. Banks, E.M., Ph.D.

Analysis No. 14,190. New York, May 5, 1897.
LALANCE & GROSJEAN MFG. CO.:
GENTLEMEN—As requested by you, we purchased in the open market a sample of "Agate Nickel Steel Ware" and have made a careful chemical analysis of the enamel covering of the same.
We find this enamel is *absolutely pure and free from Arsenic, Antimony, Lead and other substances injurious to health.* We can therefore recommend it for all culinary and drinking purposes. Respectfully yours,
RICKETTS & BANKS,
Chemists to the N. Y. Metal Exchange.

Guaranteed Double Coated and Absolutely Pure

Copyrighted.

Read carefully the Chemists' Certificates.

Send for pamphlet soon to be issued. Lalance & Grosjean Mfg. Co.

NEW YORK BOSTON CHICAGO

leading Hardware and House-furnishing Stores.

Corrugated Iron and Steel Roofing, Eaves - Trough, Conductor Pipe, Galvanized Sheet, Tin Plate and Gutters.

WRITE FOR PRICES AND CATALOGUE.

THE GARRY IRON & STEEL CO.

CLEVELAND, :: OHIO

Manufacturers Roof Paints and Mortar Colors.

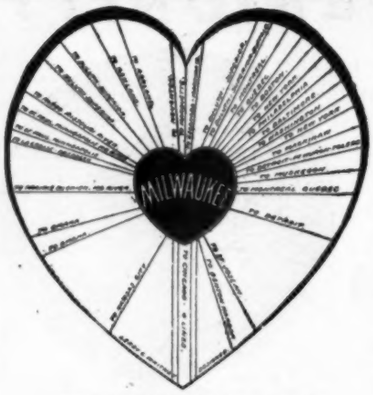
NEW TRAIN SERVICE TO FRENCH LICK AND WEST BADEN SPRINGS

MONON ROUTE

CHICAGO INDIANAPOLIS & LOUISVILLE RAILWAY

A parlor and dining car now leaves Chicago at 12:00 o'clock noon, arrives at the Springs at 8:45 P. M. Leaves Springs 9:00 A. M., arrives at Chicago 5:55 P. M. Reservations at Monon Route City Ticket Office, 232 Clark Street.

Telephone Harrison 1245.



The Great Shipping Center.

MILWAUKEE CORRUGATING CO.

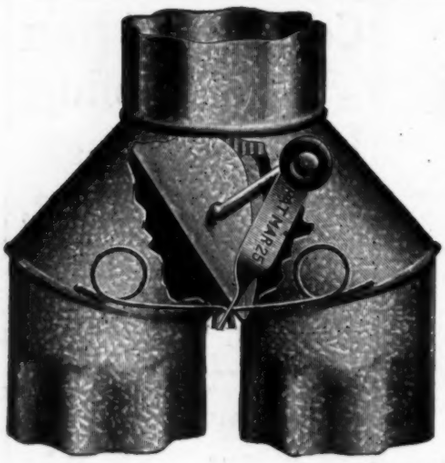
MILWAUKEE, WIS.

Manufacturers of

ROOFING	CORNICES	CEILINGS
Eave Trough	Steel Roofing	
Cond. Pipe	(all kinds)	
(Rd. and Sq.)	Corrugated Iron	
Elbows	Curved Iron	
Hangers	Crimped Iron	
Cor. Cut-Offs	Brick Siding	
Pat. 11-14-99	Rock Face	
Cond. Hooks	Beaded Iron	
Trimmings	Metal Shingles	

TIN PLATE—GALVANIZED IRON—SOLDER

WE ARE THE ONLY AUTHORIZED MANUFACTURERS OF CORRUGATED CUT-OFFS—(BEWARE OF INFRINGEMENT.)



THE PERFECTION RAIN-WATER CUT-OFF

Excels All Others in

Simplicity— Strength —Durability

KLAUER MFG. CO.

Sole Manufacturers

DUBUQUE, - - - IOWA

SUCCESSORS TO

W. A. SMITH & CO., Patentees, LIMA, OHIO

PATENT POLYGON PIPE

Can be furnished in either Galvanized Iron or Copper. It is made from galvanized iron in 10-ft. lengths, without a cross seam; from copper in 8-ft. lengths.

We can furnish regular Polygon crimped elbows made to match this pipe perfectly, or Fancy Stamped Elbows. Write us for catalogue.

AMERICAN STEEL ROOFING CO. MIDDLETOWN OHIO

The Sign of a Good Roof

FREE EDUCATION ON ROOFING in our illustrated booklet. Shall we send it?

CORTRIGHT METAL ROOFING Co.
Philadelphia and Chicago.

Roofing Slate

We operate our own quarries, manufacture and sell all grades of Slate, Roofers' Supplies, Tools, Cement, Nails, Felt. Write for prices.

THE AULD & CONGER CO.
CLEVELAND, O.

YOUNG'S COMBINATION

STRAINER AND CUT-OFF

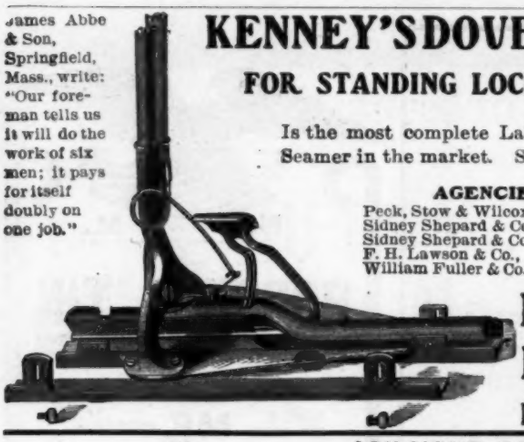
OPEN

Body in one piece; cannot break in two.
No levers or springs to break off.
A strainer perfect in construction which ejects all refuse.
All parts riveted and soldered.
Is practically indestructible.
Sold by all jobbers.

CLOSED

YOUNG MFG. CO., Bellevue, Iowa

James Abbe & Son, Springfield, Mass., write: "Our foreman tells us it will do the work of six men; it pays for itself doubly on one job."



KENNEY'S DOUBLE SEAMER

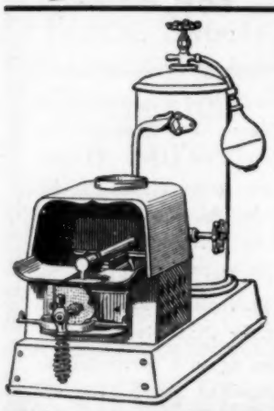
FOR STANDING LOCK TIN ROOFING

Is the most complete Labor-Saving Double Seamer in the market. Send for catalogue.

AGENCIES:

Peck, Stow & Wilcox, - - New York
Sidney Shepard & Co., - - Chicago, Ill.
Sidney Shepard & Co., - - Buffalo, N.Y.
F. H. Lawson & Co., - - Cincinnati, O.
William Fuller & Co., - - Baltimore, Md.

Dwight Slate Machine Co.
HARTFORD, CONN.



ASK YOUR DEALER FOR THE

GEM Soldering Furnace

AND YOU WILL MAKE NO MISTAKE.

Always ready—No Smoke—No Odor—No Noise—Unexcelled—Unequaled—Unrivaled—Safe—Sure—Durable.

THIRTY YEARS EXPERIENCE.

MADE ONLY BY

BURGESS SOLDERING FURNACE CO.
COLUMBUS, OHIO, U. S. A.

BEATS THEM ALL

Made in sizes to form 10 gauge and lighter. Cost only half as much as CAST IRON. It will take cast iron of three times its weight to equal it in strength.

SOLD BY—H. Weiss & Co., 20 Cliff St., New York, N. Y.; Janney Semple, Hill & Co., Minneapolis, Minn.; C. Sidney Shepard & Co., St. Louis, Mo., Kansas City, Mo., etc.; Ill. Roofing & Supply Co., Chicago, Ill.; New Orleans Roofing and Metal Works, New Orleans, La.; Peden Iron & Steel Co., Houston, Texas; D. H. Allison, Denver, Colo.; Holbrook, Merrill & Stetson, San Francisco and Los Angeles, Cal.

The O.K. Steel Brake. Patented March 28, 1901

WILL NOT WARP LIKE WOOD.

DREIS:, ANDREWS & KRUMP, Mfrs., 3214 South Halsted St., CHICAGO

LATEST IMPROVED

GAP SQUARING SHEARS

[Treadle or lever combined] or Belt Power for light or heavy work, all sizes for squaring, trimming and slitting, also cutting triangular or square holes. 8 different styles.

IMPROVED COMBINED

PUNCH AND SHEARS

12 sizes, 10 to 18 in. blades [also arranged for cutting triangular or square holes]. Improved Rolls, Crimpers, Punches, etc.

Bertsch & Co.
CAMBRIDGE CITY, INDIANA.

TINNERS...

SOMETHING NEW AND GOOD

You can fasten them on conductor before you leave shop.
They hold spout away from building.
The easiest hanger to put on.
Give your jobber a sample order and you will always use them.

Send to the Manufacturers for Free Sample by mail.

E. E. TAFT & CO., MT. PLEASANT, IOWA.

Points Worth Considering When Buying a Fire Pot.

Can it be easily carried or moved and will it do satisfactory work out of doors in windy weather? **The No. 1 Fire Pot is light and strong,** can be easily carried or moved, may always be within easy reach of the user and **produces a powerful blue flame** which is intensely hot. We know it will please you. **Your money back if it does not.** Jobbers sell at factory price, or we will ship direct upon receipt of $6.00.

$6.00 Net.

Our Catalog is free.

Clayton & Lambert Mfg. Co.
DETROIT, MICH., U. S. A.

$3.00 SAVED

TO ALL POINTS EAST AND WEST VIA THE **D & B LINE.**

"Just Two Boats" BETWEEN DETROIT & BUFFALO

DETROIT & BUFFALO STEAMBOAT CO.

COMMENCING MAY 11TH
Improved Daily Express Service (14 hours) between
DETROIT AND BUFFALO

Leave DETROIT Daily	4.00 P. M.
Arrive at BUFFALO	8.00 A. M.
Leave BUFFALO Daily	5.30 P. M.
Arrive at DETROIT	7.00 A. M.

Connecting with Earliest trains for all points in NEW YORK, EASTERN and NEW ENGLAND STATES. Through tickets sold to all points. Send 2c. for illustrated pamphlets and rates.

Rate between Detroit and Buffalo $2.50 one way, $3.50 round trip. Berths $1.00, $1.50; Staterooms $2 50 each direction. Week end Excursions Buffalo and Niagara Falls.

IF your railway agent will not sell you a through ticket, please buy a local ticket to Buffalo or Detroit, and pay your transfer charges from depot to wharf. By doing this we will save you $3.00 to any point East or West.

A. A. SCHANTZ, G. P. T. M., Detroit, Mich.

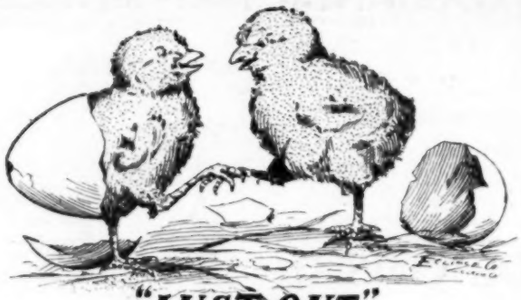
CASH REGISTERS

The Standard Cash Register

Wherever used by hardware dealers gives perfect and PROFITABLE satisfaction. Many thousands say so. Try one for profit. We have complete supply. Also **PAPER** for all kinds of cash registers.

Write For Particulars.

J. N. BIDDLE & CO.
6049 Ellis Ave., CHICAGO.



"JUST OUT"

NEW CEILING CATALOGUE.

LARGEST AND MOST COMPLETE LINE.
BEST DESIGNS :: RIGHT PRICES.
IT WILL PAY YOU TO *GET ONE* IF INTERESTED.

J. H. ELLER & COMPANY

MANUFACTURERS OF

Eaves Trough and Conductor Pipe, Cornice, Skylights, Finials, Tin Plate, Solder, Etc.

1106 EAST FIFTH AVENUE, CANTON, OHIO

U. S. N. TRADE MARK. M.

ROOFING TIN

MADE BY THE **MF** PROCESS.

The **MF PROCESS** of manufacturing roofing tin originated in South Wales two generations ago; from that time to the present the product of the **MF PROCESS** has been the most reliable and hence the **MOST FAVORED.**

Recently the **NEW METHOD** by which terne plates are finished in a manner that gives further protection against corrosion has been combined with the **MF PROCESS.** The result of this combination is the **U. S. EAGLE N. M.**

MF

AMERICAN TIN PLATE CO.

BATTERY PARK BUILDING,
NEW YORK, N. Y.

MARQUETTE BUILDING,
CHICAGO, ILLS.

Canton Metal Ceilings

Are sold on their merits. They give a highly ornamental job to the purchaser and secure more business for the contractor. Are the easiest to erect, which means a saving of time and larger profits. Are best and cheapest **because the construction is right**

METAL CANTON CEILINGS

Designs classified.

Our catalogue will put you next.

Canton Steel Roofing Co.
CANTON, OHIO.
New York Agency, 157 W. 23d St.

FRIEDLEY & VOSHARDT

194-202 MATHER STREET, CHICAGO

Send for Catalogue A 21

MANUFACTURERS OF

Sheet Metal Architectural Ornaments, Art Metal Ceilings, Zinc and Bronze Statuary, Finials, Cresting, Etc.

A FULL LINE OF ROOFING, GALVANIZED IRON, CORRUGATED IRON, SHEET COPPER, CONDUCTOR PIPE, GALVANIZED STEEL TANKS.

We Are Prepared to Execute Orders Promptly

FOR ALL KINDS OF

SHEET METAL BUILDING MATERIALS

For Exterior and Interior Uses

AND IT WILL PAY YOU TO

INVESTIGATE OUR PRICES

BEFORE PLACING YOUR ORDER

Tin Plate

Galvanized and Black Sheets

Corrugated and Curved Iron

Steel Roofing and Siding

"Classik" Metal Ceilings

Eave Trough

Conductor Pipes Hangers, Cutoffs

Cornices Skylights, Ridging

Fireproof Shutters, Doors

Metal Shingles, Ventilators, Etc

THE BERGER MFG. CO., Canton, O.

NEW YORK BOSTON PHILADELPHIA CHICAGO ST. LOUIS

Our Metal Ceilings

are no Cheap-John design with no meaning—styled by some "Good Enough," they are all we claim for them—thoroughly classical out and out. We have them in Romanesque, Rococo, Colonial, Empire, German, French, Italian, Moorish, Roman, Greek and Gothic designs. If you are interested write us—it won't hurt you.

ILLINOIS ROOFING & SUPPLY CO.

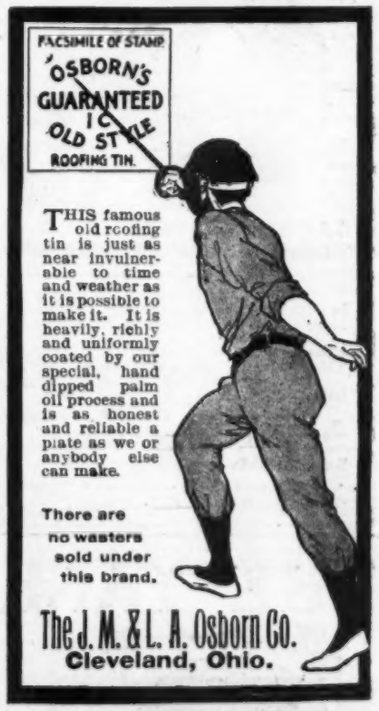
23 LAKE STREET - - - - - - - CHICAGO

ELECTRIC TRAVELING CRANES

Capacity to 200 Tons in Any Span. Crane Book F when requested.

PAWLING & HARNISCHFEGER

238 Oregon Street, MILWAUKEE, WIS.

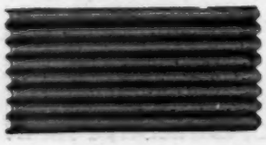


THIS famous old roofing tin is just as near invulnerable to time and weather as it is possible to make it. It is heavily, richly and uniformly coated by our special, hand dipped palm oil process and is as honest and reliable a plate as we or anybody else can make.

There are no wasters sold under this brand.

The J. M. & L. A. Osborn Co.

Cleveland, Ohio.



WRITE US FOR CATALOGUE AND LOW PRICES ON BEST

STEEL ROOFING, CORRUGATED IRON, ETC.,

We are large manufacturers of these goods and can save you money.

SYKES STEEL ROOFING CO. CHICAGO, ILL. and NILES, OHIO

PATTERN LETTERS

WE HAVE THEM

SIZES, ONE EIGHTH TO TWO INCHES.

ROMAN, ROUND FACE GOTHIC, SHARP FACE GOTHIC, HAIR-LINE GOTHIC, FLATTENED FACE GOTHIC, ANTIQUE POINTED AND REVERSED NAMOS FOR BRANDING IRONS.

ST. LOUIS ELECTROTYPE FOUNDRY

211 N. THIRD ST. ST. LOUIS, MO.

REPAIRS FOR ALL STOVES AND FURNACES

Stove Rods, Paste, Stove Putty.
Stove Knobs, Pipe Dampers, Mica, Etc.

Wm. T. Dust Co., Detroit.

REPAIRS FOR ALL STOVES AND RANGES.

A. G. BRAUER, 316-318 NORTH THIRD ST. ST. LOUIS MO.

Champion Stove Clay

The only Stove Lining made of crucible materials.
Packed in 2½ lb., 6 lb. and 10 lb. pasteboard boxes and also in bulk.
Order it from your jobber.
The best and most refractory lining made.

Bridgeport Crucible Co.
BRIDGEPORT, CONN.

UNCLE SAM DAMPER! THE PIONEER STEEL DAMPER

FURNACE PIPE DAMPER.

The handle is enameled wood, will not heat, rigidly clamped and cannot come off. The spring is not affected by heat. The stem is a steel rod, all one piece and nothing to fall apart; pointed and easily driven through the pipe. The Damper Plate is made of cold rolled pickled steel, corrugated to stiffen it and to prevent warping. We call special attention to lightness and strength of these Dampers and their desirability for **FURNACE** pipes.

"The Difference in Weight Pays the Freight."

Ask Your Jobber for the "UNCLE SAM."

SAYRE STAMPING CO., Sole Manufacturers, SAYRE, PA.

Leading Stove Founders give Kelly's Facings preference. There is a reason—you can be assured of the same uniform treatment. No order too large for prompt shipment; no order too small but will receive best attention.

Most successful stove founders use our Heavy Stove Plate Facings and Kelly's Prepared Charcoal as a return facing. If you want to compete with these use our facings. The improvement in appearance of castings warrants your giving our facings a trial.

We import our Plumbago direct from Ceylon, saving middlemen's profits and guaranteeing genuineness.

T. P. KELLY & CO.

MANUFACTURERS OF BLACK LEADS, FOUNDRY FACINGS, SUPPLYS, ETC.

544-546 West 22nd St. NEW YORK.

CHICAGO OFFICE: 36 EAST HURON STREET.

MILLS IN NEW JERSEY, PENNSYLVANIA, ILLINOIS

DO YOU WANT **STOVES AND HEATERS** that are easily sold and STAY SOLD. We have been very successful in designing patterns for such.

The Gobeille Pattern Co.
CLEVELAND, OHIO.

The GEO. W. COPE STOVE PATTERN WORKS
Cor. Brush & Woodbridge Sts.
DETROIT, MICH.

Weller Stove Pattern Co.
1110-1112-1114 State St.
QUINCY, ILL.

The Milwaukee Pattern Works
Sketches and Designs for
STOVE AND HEATER WORK OF ALL KINDS.
Correspondence Solicited.
505-507 Cedar Street, MILWAUKEE, WIS.

Polishers and Platers Supplies

EVERYTHING FOR POLISHERS and PLATERS.

Nickel Anodes
Double Nickel Salts
Single Nickel Salts
C. P. Cyanide of Potassium
Carbonate of Copper (dry or moist)
Turkish Emery
Emery Cake
Tripoli & Crocus Compositions

F. B. STEVENS (Maker of the Best)
DETROIT, MICH.

THE YANKEE (IMPROVED ALL STEEL) DAMPER.

HOT AIR.

THE YANKEE EXCELS.

Above All—Cheapness—a dealer cannot possibly make dampers as cheaply as we sell the Yankee. Easily put in and taken out of pipes. Stiffest, quickest-working and neatest damper on the market.

It is impossible for this rod when in position to move either way.

ROD POINTS: Has wood enameled handle. Wood handle cannot come off. Washer and spring cannot fall off the rod. Same size of holes are punched on each side of pipe. Rod is made of ¼ in. cold-rolled steel and slips into damper very smoothly. **Sample sent to any Dealer without charge.**

SMOKE PIPE.

The S. M. HOWES CO., Manufacturers, 40-46 Union St., Boston, Mass.

BLACK SILK STOVE POLISH

IT IS BLACK

Has been sold to the trade since 1884 and has never changed its name.

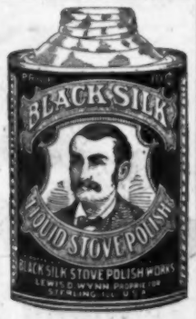
IT IS GOOD

NOT SOLD TO DEPARTMENT STORES OR MAIL ORDER HOUSES.

MFG. BY **THE BLACK SILK STOVE POLISH WORKS**

STERLING, ILL.

LEWIS D. WYNN, PROPRIETOR.



ACME OVEN THERMOMETERS

THE BEST IN THE MARKET.

STYLE "C"

GIVE THEM A TRIAL.

STYLE "D"

2½-INCH DIAL

MANUFACTURED BY

THE

EVANS STAMPING & PLATING CO.

TAUNTON, - MASS.

C. H. MATTHEWS, Detroit, Mich.
(Western Agent.)

2½-INCH DIAL

IF A RELIABLE AND ACCURATE INDICATOR IS NEEDED FOR YOUR RANGE DOORS THEN THE

No. 460.

"STANDARD"

IS WHAT YOU NEED

ACCURACY
AND
DURABILITY

ARE ITS SPECIAL FEATURES

HELIOS-UPTON CO., Peabody, Mass.

or HENRY GLEASON, *Agent, 258 Broadway, N. Y.*

LA CROSSE STEEL ROOFING AND CORRUGATING CO., La Crosse, Wis

MANUFACTURERS OF

EAVES TROUGH, CONDUCTOR PIPE

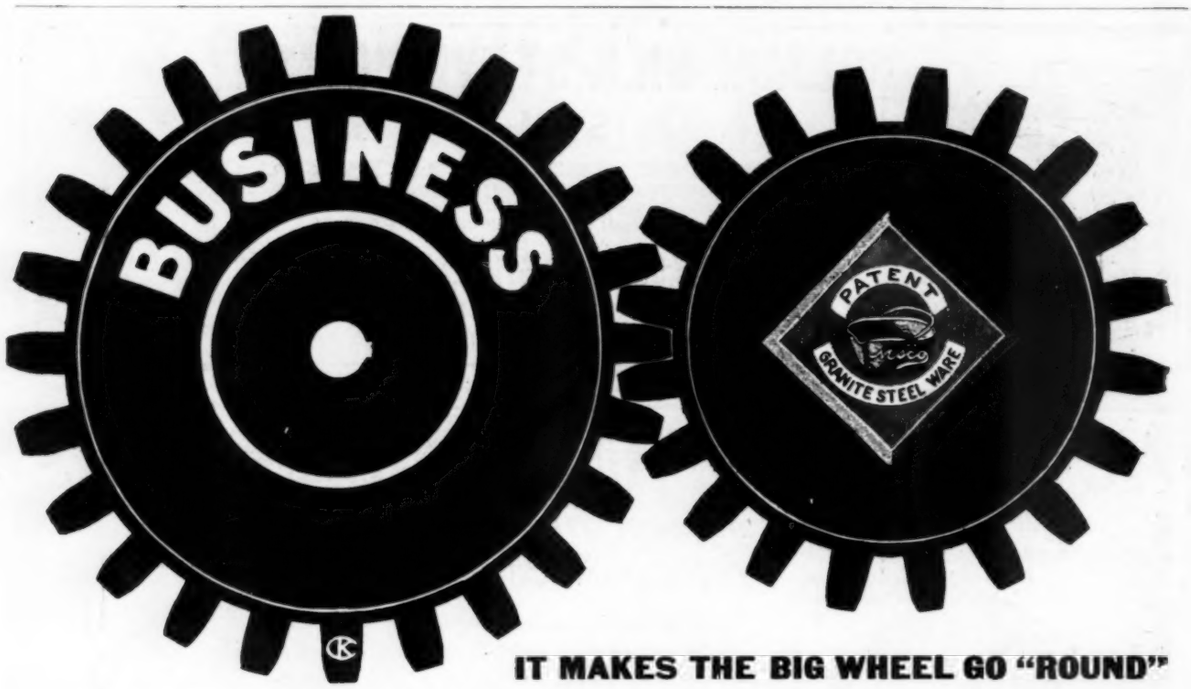
Our make of goods the very best.

Send us your spring order.

Prices the very lowest

Prompt Shipments.

ELBOWS, MITRES, HANGERS, CUT OFFS, ROOFING AND SIDING MATERIAL.



IT MAKES THE BIG WHEEL GO "ROUND"

Couldn't you take care of more business in your Enameled Steel Ware and Tinware Department? Then why don't you write and get our catalogues and prices! You don't have to push our goods---our goods push you. Our trade mark insures the highest quality that can be bought---and your customers doubtless know it. Write to our nearest office.

National Enameling & Stamping Co.

New York. Baltimore. Chicago. St. Louis. New Orleans. Milwaukee.

"Eagle" Brand Copper Rivets and Burrs

STANDARD FOR QUALITY. (Lake Superior Copper)

—MANUFACTURED BY—

THE PLUME & ATWOOD MFG. CO.

29 Murray St., NEW YORK 196 Lake St., CHICAGO, ILL.

E. W. WARD CO.

32-34 East Fairfield Avenue, St. Paul, Minn.

Complete line of thresher supplies. Wholesale dealers in mill and elevator supplies, boilers, engines, steam fittings and trimmings, leather belting, rubber and cotton hose, etc.

Established 1874.

The largest and most reliable **Foundry Supply House** in the world.

THE

S. Obermayer Co.,

CINCINNATI, OHIO,
CHICAGO, ILL.

manufacturers

"Everything You Need in Your Foundry."

Importers and refiners
PLUMBAGO GRAPHITE.
Catalog Sent on Application.

DO YOU WANT THE BEST?

GUARANTEED FULL WEIGHT COPPER WASH BOILERS

Did you ever inspect your Copper Wash Boilers to see if they are full weight?

Our 16-oz. No 8 Copper Wash Boilers weigh 7 lbs. each, without cover.

Our 16-oz. No. 9 Copper Wash Boilers weigh 8¼ lbs. each, without cover.

Our 18-oz. No. 8 Copper Wash Boilers weigh 8 2-5 lbs. each, without cover

Our 18-oz. No. 9 Copper Wash Boilers weigh 9¼ lbs. each, without cover.

We furnish these with stamped or pieced cover, plain or royal handle, and pack them ¼-doz. to the package, ready for reshipping We make the 12 and 14-oz. also.

Try a sample lot and allow your salesman to use above weights and good results will follow.

No traveling salesmen represent us on the road. Buy direct from the factory and save money. Prices and catalogue on application.

STUBER & KUCK, Peoria, Ill.

ONCE TRIED, ALWAYS USED.

THE BAR-KEEPER'S "FRIEND"

FOR WASHING, SCOURING, CLEANSING AND POLISHING

BAR FIXTURES, DRAIN BOARDS AND ALL Tin, Zinc, Brass, Copper, Nickel and all Kitchen and Plated Utensils. Glass, Wood, Marble, Porcelain, Etc.

GEORGE WM. HOFFMAN,
Sole Manufacturer and Proprietor,
295 East Washington St., Indianapolis.

THE BAR-KEEPERS' FRIEND.

BARKEEPER'S FRIEND.

Marble, Glass, Nickel, Brass, Copper, Tin and German Silver

can all be cleaned and polished with it easier than with anything else.

Price 25c per lb.

Let us send you a free sample.

GEO. WM. HOFFMAN,
295 E. Washington St.,
INDIANAPOLIS, - IND.

FOR SALE BY JOBBING TRADE.

SURPRISE CREAM SEPARATOR

A Labor-Saving Device for Taking Care of Milk and Cream.

Made of heavy tin; durable—works thoroughly—does away with crocks, pans and hard work—keeps milk and cream clean; not expensive—not complicated. Made in six sizes; every one guaranteed.

SEITHER-CHERRY CO., Keokuk, Iowa

JUST ONE MINUTE

IS IT QUALITY? IS IT PRICE?

We have BOTH in

The Frost King Separator

Water and milk not mixed. They are bound to please your trade that demand this style of Separator as they sell for from 10 to 25% less than asked by others. Write to-day for Catalogue and prices.

Lawrence Mfg. Co., Toledo, O.

GREAT ASSORTMENT OF EARS, KNOBS AND HANDLES.

LEADING SUPPLY HOUSE IN AMERICA for this class of goods.

Ask for Samples, Catalog and Prices.

BERGER BROS. CO., Mfgrs.

OFFICE AND STORE: 237 Arch Street
WAREROOMS: 100-02-04 Broad Street
FACTORY: 3114-16-18-20 N. 17th St.
PHILADELPHIA

IWAN'S VOLCANO

REVOLVING AND VENTILATING CHIMNEY TOP Unsurpassed for creating strong, regular draft at all times.

Iwan's Patent Improved Post Hole and Well Auger
Best in the world for fence, telephone and telegraph post holes, wells, plumbing, etc.

Perfection Wire Conductor Pipe Hanger Made of galvanized wire. For frame or brick buildings, holds pipe 1 inch from building to permit painting.

Write your jobber or us for prices on the IWAN SPECIALTIES

Mnufactured Only by **IWAN BROTHERS, Streator, Ill.**

The BOSS CREAM SEPARATOR

The most complete device for handling milk winter and summer. No mixing of milk and water. Thousands were sold last year, and many more will be sold this year.

Write at once for descriptive circulars and prices.

Bluffton Cream Separator Co.
BLUFFTON, OHIO.

We Make BRASS

FAUCETS

of Any Size or Style for

Cream Separators, Milk and Oil Cans.

ASK FOR CATALOGUE.

THE CLARK NOVELTY CO.,
ROCHESTER, N. Y.

Hero & Charm Barrel Churns, Union Geared Churns, Anti-Bent Wood Churns, Ash Dash Churns.

Patent dashers. O I C Quartered Oak Stable Pails, Everlasting Cypress Tree Tubs. Most extensive churn manufacturers on earth.

AMERICAN WOODEN-WARE MFG. CO., TOLEDO, O.

IMPROVED NATURAL STONE GERM PROOF

WATER FILTERS

Prevent Zymotic Diseases by pushing sale of these goods in your locality.

EVERY FILTER IS GUARANTEED TO BE ABSOLUTELY GERM PROOF.

EVERY FILTER IS A PERFECT FILTER WHEN IT LEAVES OUR FACTORY.

Every shipment contains a handsome display card. Price lists and discounts are furnished upon application. Manufacturers of Sanitary Stoneware of every description. Pottery Established 1826.

FULPER POTTERY CO.
FLEMINGTON, N. J.

HOMESEEKERS EXCURSIONS

On FIRST and THIRD TUESDAYS in each Month to **VIRGINIA**

Via NORFOLK & WESTERN RAILWAY

For all information as to Rates and Tickets and for LAND PAMPHLETS and descriptive matter, address

ALLEN HULL, D. P. Agt., Columbus, Ohio

THE "1900" BALL BEARING WASHERS

The Greatest Labor-Saving Machine ever Invented for family use.

Our washers are the best made and most satisfactory machines in the world. They work on an entirely new principle. There are no wheels, paddles, rockers, cranks or complicated machinery to get out of order. They revolve on ball bearings making them by far the easiest running machine made.

We Want One Dealer in Every Town.

The "1900" Washer Co.

Johnson Block, Binghamton, N. Y.

WHITE LILY WASHER

HIGH SPEED. LIGHT RUNNING.

Sold direct from manufacturers to dealers.
Only one dealer in each town.

SEND US A TRIAL ORDER.

WHITE LILY WASHER CO.

TOLEDO, OHIO. DAVENPORT, IOWA.
SAN FRANCISCO, CAL.

White Lily Washers Wash Lily White.

OCEAN WAVE WASHER

Once Sold They Never Come Back

EXCLUSIVE AGENCY GRANTED.

Handsome, Well Made and Light Running, Adjustable to High or Low Speed.

Write for particulars.

VOSS BROS. MFG. CO.
DAVENPORT, IOWA.

There is no other Sifter made that has the reputation or is any comparison to the Genuine Hunter's.

The only Sifter with a loose cap on the handle, so as to clean out the flour that accumulates in it while the Sifter is in use

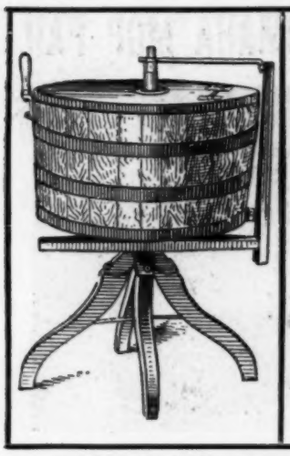
THE BEST IN THE WORLD

Combined Mixer, Scoop, Measure, Dredger, Rice Washer, Pumpkin, Tomato, Wine Starch and Fruit Strainer.

The Fred J. Meyers Mfg. Co.,
HAMILTON, - - OHIO.

GUS WINTERBERG,
Sandwich, Ill., writes:

"Please stop my advertisement for tinner, or furnish me with a bookkeeper, as I cannot attend to all the mail that I receive."



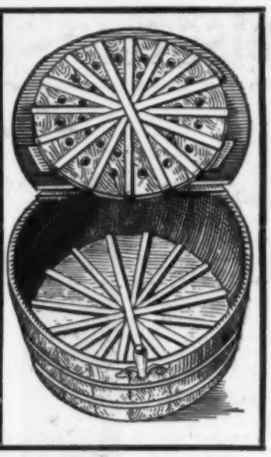
The 1903 WASHER

Best made,
Correct principle,
Perfect washer,
No wear on clothes.

FOR TERMS AND TERRITORY WRITE

The 1903 Washer Co.

ALTOONA, PA.



Do You Know

That the O. K. WASHING MACHINE

is the best made, the lightest running and the most attractive washer on the market? *Are you selling it? If not, why?* Every first-class dealer should sell it, because it is made of the best materials, by the best mechanics that can be obtained, and every one sold will sell another.

Write us for Circulars and Prices.

H. F. BRAMMER MFG. CO. Dept. B. DAVENPORT, IOWA

Peoria Washing Machines.

BEST IN THE MARKET.
MADE WITH BALL-BEARINGS.

Have a Compound Lever Handle which greatly reduces the work of wash days. The motion used in vibrating the handle takes the strain from the back and lets the arms do the work with a great reduction in labor.

Send for Catalogue.
Secure the Agency.

CLARK, QUIEN & MORSE,
PEORIA, ILL.

"BOSS" Washing Machines

11 Different Styles. 31 Sizes.

Illustration represents our "Standard Champion" [single acting] Lever Machine. For full description write for catalogue showing our complete line.

ADDRESS

Boss Washing Machine Company,
Station H, CINCINNATI, OHIO

F. W. HOUCK, Sheldon, Ia., writes:

"Please discontinue my advertisement for Situation Wanted, in THE AMERICAN ARTISAN. Results have been speedy and very satisfactory."

15,000

New Rural Free Delivery Routes will be opened this year. If some of these are in your territory there is anywhere from $120 to $1,200 business in each route for you, Mr. Hardware Dealer, if you handle the

Roesch Automatic Rural Delivery Mail Box

Approved by the Postmaster General.
STORM AND DUST PROOF.
The Cheapest Box, Quality Considered.

ROESCH MFG. CO.

387 New York St., AURORA, ILL.

SOME FACTS ABOUT TYPEWRITERS

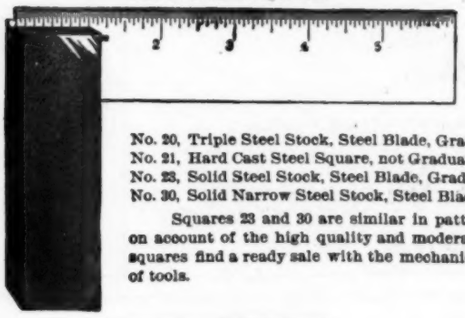
Great progress has been made in building typewriters in the last three years, greater advances than in all the time previous. Years of experience have shown what was valuable and desirable and what should be sacrificed. Some typewriters do good work and are durable, yet are hard to operate and are cumbersome; others are too complicated and easily get out of order, do not keep alignment, etc.

Operators who have used The Fox Typewriter are unanimous in agreeing that it combines more desirable features than any writing machine yet produced. It is a basket type machine, with ball bearing carriage, two oz. key tension, half inch key dip aluminum finger levers with individual tension, adjustable typebars—insuring perfect alignment even after years of service, line lock, automatic line spacer, and automatic ribbon movement, combining the features that give durability with the lightest touch, easiest action and most simple construction.

Our 1903 catalogue tells all about it and will be sent for the asking. Our free trial plan enables anyone, anywhere, to try "THE FOX" for ten days. Write us to-day about it. FOX TYPEWRITER CO., LTD., 454 FRONT ST GRAND RAPIDS, MICH.

DISSTON MACHINISTS' SQUARES.

NO. 20 STEEL SQUARE.



Tried Inside and Out.

—QUALITY—
SUPERIOR

—FINISH—
ACCURATE.

No. 20, Triple Steel Stock, Steel Blade, Graduated, 1-32-inch.
No. 21, Hard Cast Steel Square, not Graduated.
No. 23, Solid Steel Stock, Steel Blade, Graduated, 1-16-inch.
No. 30, Solid Narrow Steel Stock, Steel Blade, not Graduated.

Squares 23 and 30 are similar in pattern to No. 20, and on account of the high quality and moderate price these two squares find a ready sale with the mechanics using this class of tools.

SEE CATALOGUE FOR FULL LINE.

Henry Disston & Sons, INC.

KEYSTONE SAW, TOOL, STEEL AND FILE WORKS,
PHILADELPHIA, PENNA.

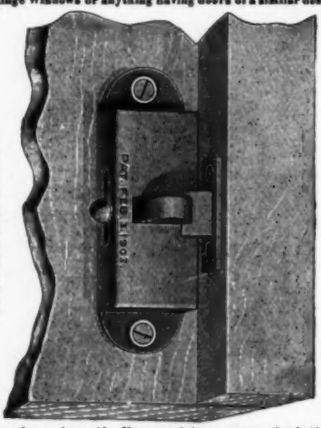
THE OMAHA MOP PAIL

THESE ARE BOUND TO PLEASE.
Write Us.

CENTRAL MFG. CO., OMAHA, NEB.

The Duplex Automatic Screen Door Catch.

Is a practical and useful article, and is also used on Cupboards and Hinge Windows or anything having doors of a similar design



1 Doz. in Box with Screws.

It works automatically, requiring no manipulation by hand or foot, as it automatically catches when the door closes, firmly holding it closed, until released by a slight pull or push, and can be dead locked when so desired. There is nothing in its construction to weaken or give out, and it can be applied by any person without difficulty. THE DUPLEX CATCH gives unqualified satisfaction and is heartily endorsed by those who have used it, which insures a ready sale by the Hardware Dealer. Give it a trial.

The catch is furnished in the following finishes: Dull nickel on steel, old copper on steel and solid brass. Is both cheap and good. Easy sold, as we furnish dealers with working model. All first-class hardware jobbers handle it. Made by

DUPLEX LATCH COMPANY
Chamber of Commerce Bldg., CLEVELAND, OHIO

American Family Scale

BEST IN THE WORLD.

It is made of STEEL, TIN or BRASS Scoop Top.

A most beautiful and attractive scale for all purposes. Beautifully enameled, ornamented and striped. Weighs 20 pounds by ounces. Occupies but little space. Is light and easily moved. It can be regulated by turning the brass screw on top. It is always ready and easily understood. It is a convenient scale to use, and has no weights that may be lost. You can look this one in the face to prove its accuracy without looking for weights. Every scale examined before leaving the factory and warranted correct.

MANUFACTURED BY

AMERICAN CUTLERY CO.
CHICAGO, ILLINOIS.

THE CLEVELAND & BUFFALO TRANSIT COMPANY

C&B LINE

CONNECTING
CLEVELAND and BUFFALO
"WHILE YOU SLEEP"

UNPARALLELED NIGHT SERVICE. NEW STEAMERS
"CITY OF BUFFALO"
AND
"CITY OF ERIE"

Both together being, without doubt, in all respects the finest and fastest that are run in the interest of the traveling public in the United States.

TIME CARD
DAILY INCLUDING SUNDAY

LEAVE	ARRIVE
Cleveland 8 P.M.	Buffalo 6:30 A.M.
Buffalo 8 "	Cleveland 6:30 "

CENTRAL STANDARD TIME

ORCHESTRA ACCOMPANIES EACH STEAMER

Connections made at Buffalo with trains for all Eastern and Canadian points, at Cleveland for Toledo, Detroit and all points West and Southwest.

SPECIAL LOW RATES CLEVELAND TO BUFFALO AND NIAGARA FALLS EVERY SATURDAY NIGHT, ALSO BUFFALO TO CLEVELAND.

Ask Ticket Agents for tickets via C. & B. Line. Send four cents for illustrated pamphlet.

W. F. HERMAN, General Passenger Agent
CLEVELAND, O.

The "Weber Junior" Pumper

Can also be used for other power purposes.

is all complete, ready to attach to pump. Equals 30 men pumping water. Uses but little gasoline. Is shipped crated completely erected, all connections made. Easy to start, any one can operate it. Every one guaranteed. Other sizes up to 50 H. P. Send for catalog. Weber Gas & Gasoline Engine Co., P. O. Box 1115n, Kansas City, Mo.

Measuring Tapes

Steel, Metallic, Linen, etc. Our Goods are Recognized as the Best. Tinners' Rules, Magic Pattern Rules, etc. Send for Catalogue and Mention The American Artisan.

Lufkin Rule Co.

SAGINAW, MICH.

THE MAN WITH THE SHOVEL MOVES THE EARTH.

OUR PATENTED
Perfect Socket,
Smooth Back Shovel.

Are you also being moved pretty lively to supply our PATENTED SMOOTH-BACK SHOVELS?

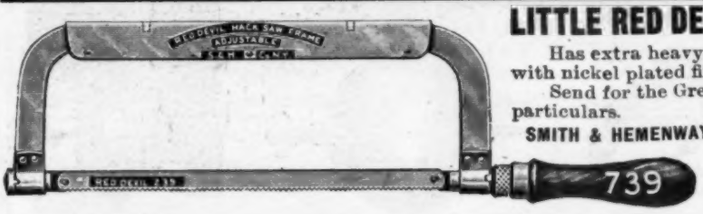
If you have none of these shovels on show you are missing some very PROFITABLE EXERCISE.

There's not much educating necessary to sell our Smooth-Back Shovels, Don't you find the good points about them self evident?

Hollow Back Shovels, Spades and Scoops and "Never Break" Wares are other products of ours. Write for literature.

THE AVERY STAMPING CO., :: CLEVELAND, OHIO

Makers of "Never-Break" Goods.



LITTLE RED DEVIL ADJUSTABLE HACK SAW FRAME

Has extra heavy back, absolutely rigid, is made of fine tool steel with nickel plated finish, and bears our trademark.

Send for the Green Book of Hardware Specialties for price and particulars.

SMITH & HEMENWAY CO., Manufacturers of Cutlery and Hardware Specialties.

UTICA DROP FORGE & TOOL CO.
Manufacturers of NIPPERS and PLYERS.
29 Broadway, New York City, NEW YORK

"LIGHTNING" "GEM" "BLIZZARD"

THE BEST ICE CREAM FREEZERS in practical use, because convenient, compact in size, use smallest amount of ice and salt, run easily, freeze quickly, produce smoothly frozen creams or desserts with little bother and less work.

THE ONLY FREEZERS MADE HAVING
Cedar Pails with Electric Welded Wire Hoops.
Cans of Heavy Tin with Drawn Steel Bottoms.
AUTOMATIC Twin Scrapers.

SOLD BY LEADING JOBBERS. CATALOG SENT FREE.

North Bros. Mfg. Co., Philadelphia.

Compartment Sleepers
Standard Open Sleepers
Palace Parlor Cars
Table d'hote Diners
Luxurious Day Coaches

Are some of the many features of a trip over the

Big Four Route

CHICAGO to INDIANAPOLIS and CINCINNATI

Ask for Tickets via the "Big Four."

J. C. TUCKER, G. N. A., 234 Clark St., Chicago.

SPERRY'S CALDRONS....

Full measure, guaranteed perfect, original patterns, with metal distributed where it is needed. Many Caldrons are made from our castings as patterns. They are inferior to original, as they have light bottoms and heavy sides and hold less.

D. R. SPERRY & CO.,
HOLLOW-WARE FOUNDERS,
BATAVIA, ILL.

TWELVE SIZES ALWAYS IN STOCK.

A. W. LICHTFELD, Libertyville, Ill., writes:—"Please take out my advertisement for Tinners Tools in THE AMERICAN ARTISAN. It does not take THE AMERICAN ARTISAN long to find customers."

..THE HORIGAN WATER WORKS..

The following questions are frequently asked:

What are the Horigan Water Works?

It is a system of furnishing residences, suburban homes, and other buildings with a supply of pure water from your own well or cistern, by Air Compression.

Can you draw water from faucets the same as from City Water Works?

Yes.

Can I have a hot water boiler connected to range, so that I can have plenty of hot water, at all times?

You can.

If water was needed in a three-story building, could it be supplied?

Yes, by a slight increase in the pressure.

If a hydrant for lawn sprinkling was wanted, could it be used?

Yes, by simply putting a connection for same on the main supply pipe.

Can I supply the barn with water for stock, buggy washing, etc.?

Yes, by extending the supply pipe from tank to the barn, and using proper faucets.

Can this apparatus be used successfully in case of fire?

Yes, by simply attaching a hose to the hydrant, or to a faucet over the sink, and starting the pump to maintain a high pressure.

Does it effect insurance rates?

It does in some cases as much as twenty-five per cent.

Is the system complicated?

No, the embodiment of simplicity

Where do you place the tank?

In the cellar or basement.

Does it make any difference as to how far from the house the well or cistern is located?

Practically none, with the exception of the additional cost for piping to the well, if distant.

When windmill power is applied, is there not danger of bursting tank and pipes?

No, this is overcome by the application of a Hydraulic Valve, which is so regulated that the water returns to the well or cistern, after the desired pressure has been obtained.

What pressure carried where this system is in use?

From forty to sixty pounds usually; one hundred pounds can be had if required.

How is the dirt or sediment that accumulates in the tank removed?

By removing the cap at the base of the tank, which is provided with handles, and can easily be removed.

Write for Circulars and prices.
Manufactured by

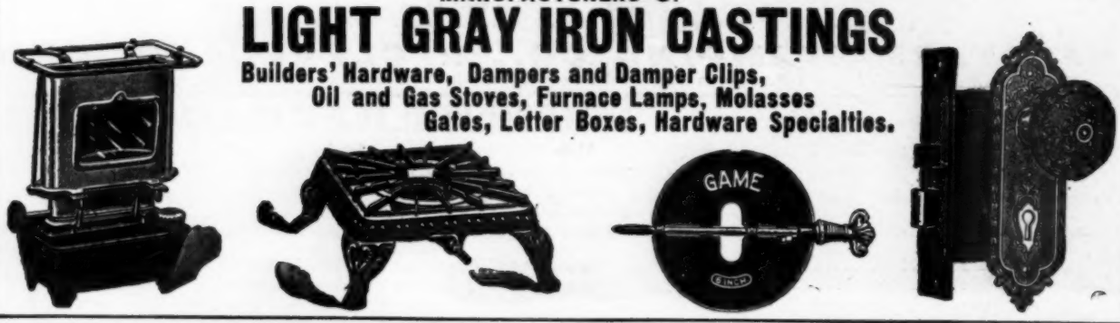
HORIGAN SUPPLY CO., ST. JOSEPH, MO.

THE TAYLOR & BOGGIS FOUNDRY CO.

CLEVELAND, OHIO.
MANUFACTURERS OF

LIGHT GRAY IRON CASTINGS

Builders' Hardware, Dampers and Damper Clips,
Oil and Gas Stoves, Furnace Lamps, Molasses
Gates, Letter Boxes, Hardware Specialties.



Hurwood Tools Are Indestructible

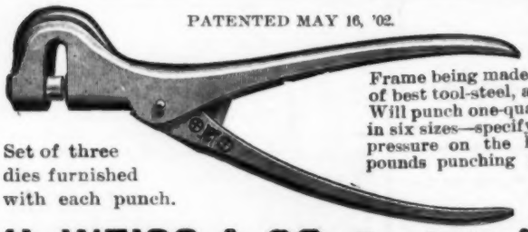
WRITE FOR CATALOGUE

The Hurwood Mfg. Co.,
PLANTSVILLE, CONN.

Stanley Rule and Level Co.

IMPROVED CARPENTERS' TOOLS Sold by All Hardware Dealers

NEW BRITAIN, CONN.



PATENTED MAY 16, '02.

"HERCULES"

Punch is very strong

Frame being made of semi-steel, punch and die of best tool-steel, and all parts interchangeable. Will punch one-quarter inch hole. Can be had in six sizes—specify sizes wanted. 50 pounds pressure on the handles increased to 1,000 pounds punching force. 100 pounds pressure increased to 2,000 pounds punching force.

Set of three dies furnished with each punch.

H. WEISS & CO., Tinners Supplies. 20 Cliff St., New York.

FOX SHAVING SETS

Every article in this set is guaranteed. The razor is a Fox, which is known all over as the best made. It retails for $3.00.

FOX CUTLERY CO.
DUBUQUE, IA.

Buckeye Brand

Should be in every high class dealers stock.

Buckeye Paint & Varnish Co.
TOLEDO, OHIO.

Largest and Best Equipped Factory in the South for the Manufacture of **SAD IRONS;** Country and Stove **HOLLOW WARE,** Ground and Unground;

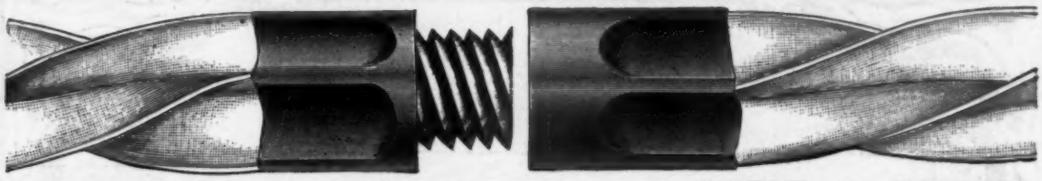
SUGAR KETTLES, ENGLISH POTS,

Cast Iron **SHOE LASTS AND STANDS, KITCHEN AND CORNER SINKS, GRATES, etc.**

WHY NOT WRITE FOR OUR CATALOGUE? It cannot fail to prove of interest and value to you.

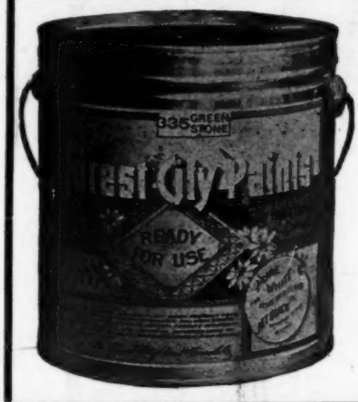
BLACKLOCK FOUNDRY, South Pittsburg, Tenn.

LIGHTNING RODS, COPPER, GALVANIZED STEEL.



THE TRADE SUPPLIED AT LOWEST RATES.
Send for New Illustrated Catalog, No. 4.

THE E. A. FOY CO.
640 Main Street, CINCINNATI, OHIO.



Some Brands

of Mixed Paints may be all right, Mr. Dealer, and then they may not. Is it not good judgment to lay in a stock which you know is right in both quality and price? We make such a paint and request your writing for literature and terms.

THE FOREST CITY PAINT & VARNISH CO.
CLEVELAND, O.

THE LEONARD CATALOG CABINET
Offers the Best System for the care of Catalogues.

Made of Oak, front quarter-sawed and highly polished. Size 32 in. wide, 24 in deep, 63 in. high. Has compartments for every size of catalogue. Every space is numbered and catalogues are arranged in the space they fit closely; catalogues are then given the same number as their space, and same number entered on the card index with titles. There is also a cross index for articles. This system is the outgrowth of a long experience and the benefits derived from it are enormous. Send for colored circular and full description.
Price, with the two Card Indexes....$25.00
Price, with Leonard System for buyers added..... 35.00
LEONARD MANUFACTURING CO.,
34 Market St., Grand Rapids, Mich.

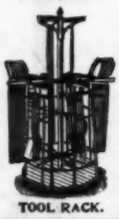
TACKS
TOWER M'F'G. CO.
ELM & FRONT STS.
CINCINNATI, O
MANUFACTURERS

A PERFECT MODEL WRENCH

Exact Size of Cut.
Price $2.00 per doz. with either Ebony, Ivory, Coral or Amber handles.
We will send a dozen in a handsome plush lined cherry tray to any responsible dealer, ON CONSIGNMENT, to be returned at our expense if found unsalable. We could not do this if they were not the best selling novelty in the hardware trade. They sell wherever shown.
Davison Mfg. Co. 110 Front Street, Brooklyn, N. Y.

DISPLAY
Pick up the trade papers and you read article after article on Advertising Display, Window Display, etc. Most important of all is Store Display. We are hardware store display experts and would be glad to advise you as to racks, etc. Write us for catalogue of

HERRICK'S

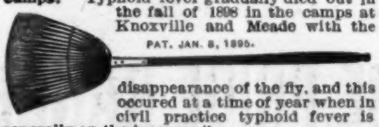


TOOL RACK.

Herrick's Tool Trucks, Tool Brackets, Sampling Hooks, Hammer and Hatchet Cases, and Screw Cases.

F. A. HERRICK COMPANY,
Jackson, Mich.

THE RAPIDITY WITH WHICH THE
BIGELOW'S WIRE FLY KILLER
Kills but does not crush the fly makes it a rapid seller.



Extract from Medical Report on Spanish War Camps: "Typhoid fever gradually died out in the fall of 1898 in the camps at Knoxville and Meade with the disappearance of the fly, and this occured at a time of year when in civil practice typhoid fever is generally on the increase."
Send for prices and illustrated booklet.
J. F. BIGELOW, Manufacturer
WORCESTER, MASS.

O-RIB-O WARE

BRISCOE MFG. Co.
DETROIT.

For Your Vacation Trip

The Yellowstone Park, the nation's playground, is larger than the State of Delaware and nearly twice as large as Rhode Island. As in size it exceeds all other national parks of the world combined, so in grandeur and scenery it is unequaled. Here are located the eight great geysers of the world. Mount Washburn, one of the peaks in the park, has an altitude of 10,388 feet. The whole park is an area of wonders unparalleled. It is from 1,000 to 5,000 feet above the level of the sea and is therefore within the zone of two seasons.

But to really know this wonderland you should take a trip through there. You cannot spend a vacation season more profitably or more pleasantly. The Chicago, Milwaukee & St. Paul Railway offers choice of routes to and from Yellowstone Park. If you are interested, complete information about the cost of the trip, choice of routes, train service and tickets will be furnished on request.

F. A. MILLER, General Passenger Agent, Chicago.

ASK THE

HOME PRIDE RANGE CO.

MARION, INDIANA,
FOR CATALOGUE.

Oldest malleable steel range sold exclusively to the trade.

Heaviest material and richest appearance.

The only smooth nickel over copper.

Right and left hand flush, portable reservoirs.

Eighteen, twenty and twenty-three inch ovens.

Nos. eight and nine lids.

HOME PRIDE RANGE CO.

MARION, IND.

HARDWARE
CUTLERY

BICYCLES
SPORTING GOODS

GUNS
RIFLES

TINPLATE
AMMUNITION

Sausage Stuffer, Lard and Fruit Press with Patented Corrugated Spout

8 Sizes and Styles

Meat Juice Extractor

No. 21 $2.50

Bone, Shell and Corn Mill

No. 750 $8.50

N. Y. Branch, 10 Warren Street

ENTERPRISE
Food Choppers
TINNED

No. 100 *chops 2 lbs. of Meat per minute* $1.50
No. 300 *chops 3 lbs. of Meat per minute* $2.25

Four Knives with each Machine

Fine — Medium — Coarse — Nut Butter Cutter

Order from your Jobber — Illustrated Catalogue Free

The Enterprise Mfg. Co. of Pa.

Philadelphia, Pa., U. S. A.

Rapid Grinding and Pulverizing Mills

10 Sizes & Styles for Hand, Steam & Electric Power

No. 3 $5.50

Raisin Seeder

No. 36 $1.00

Cold Handle Polishing IRONS

No. 82 $7.50 doz.

San Francisco Branch, 105 Front Street

Every Sheet in Every Box of
McCLURE'S GENUINE CHARCOAL IRON RE-DIPPED BRAND ROOFING TIN

Is Guaranteed to Wear 15 Years.

Prompt shipments can be made from Pittsburgh and Philadelphia warehouses.

THE McCLURE CO.
PITTSBURG — Sole Makers — PHILADELPHIA
MILLS: WASHINGTON, PA.

THE "CENTENNIAL" Rain-Water Cut-Off

The strongest, most durable, and cheapest CUT-OFF on the market.

The only single Cut-off made to fit CORRUGATED and Plain Pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers. Patent applied for.

Manufactured only by **Cooney & Geiger,** 19 and 21 E. South St., INDIANAPOLIS, INDIANA.

"PULLMAN" Sash Balances

Are you selling them?
In use Everywhere.
Look for the Metal Tapes in All New Buildings.
Folder No. 3 sent free.

PULLMAN MFG. CO.
Rochester, N. Y., U. S. A.

EXCELSIOR FOR PACKING PURPOSES

Ask for price F. O. B. Your station.

THEO. P. HUFFMAN & CO.
648 & 650 W. 34th Street, NEW YORK CITY.

BRADLEY SHELF BRACKETS.

Strong, Light and All Right.
ATLAS MFG. CO., New Haven, Ct.

STEVENS

Rifle Cleaning Rods Make a Good Line to Have in Your Stock . . . . . .

OUR ROD WITH SPECIAL OR JAGGED TIP IS CONSIDERED THE BEST ONE ON THE MARKET

OUR SPECIAL RING PREVENTS A BURR AT THE MUZZLE

THESE RODS RANGE IN PRICE FROM 10 CENTS TO 75 CENTS, AND NO DEALER IN SPORTING GOODS CAN AFFORD TO BE WITHOUT THEM

Your Jobber has them. Send for Catalog.

J. STEVENS ARMS & TOOL CO.
No. 245 BROADWAY,
CHICOPEE FALLS, MASS.

BUY

Your goods well from a jobbing house that will give you attractive prices and prompt shipments. We are wholesalers of shelf hardware, house and bank trimmings, "Cutler's Easy" tools and cutlery.

CUTLER HARDWARE CO.
WATERLOO, IOWA

THE Peerless Flue Stopper

Steel wire springs instead of sheet iron stays.

Stays where you put it, and is absolutely soot and smoke proof.

Made either plain or decorated.

Send for miniature sample and prices.

WELLING - BOWERS MFG. CO.,
LIMA, OHIO.

Successors to
WELLING MFG. CO., Columbus, Ohio.

The "Globe" Ventilator

In Brass, Copper, Galvanized Iron and with Glass Tops for Skylight purposes.

For Perfectly Ventilating

Schools, Churches, Halls, Mills, Factories and Audience Rooms of Every Character.

Smoky Chimneys Cured.

"Globe" Ventilated Ridges. Send for Pamphlet.

Manufactured by

Globe Ventilator Co., Troy, N. Y.

ATKINS Makes the Only GENUINE EXCELSIOR SAW TOOL

Comprising Combined Side File, Jointer and Raker Tooth Gauge, Setting Block and Tooth Set Gauge.

Beware of base and cheap imitations claiming to be "just as good" as the Atkins. If you want a cheaper tool, our "Leader" will suit you.

Nearly One Million sets of Excelsior Tools have already been sold. Most popular tools for keeping cross-cut saws in order on the market.

E. C. ATKINS & CO., LEADING SAW AND TOOL MANUFACTURERS.
Factories: INDIANAPOLIS, IND.
Branches: New York City. Memphis, Tenn. Atlanta, Ga. Minneapolis, Minn. Portland, Ore.